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ABSTRACT

The monograph is designed to assist program planning teams in developing language arts programs for hearing-impaired students in regular classrooms. Topics discussed include promising instructional strategies, description and evaluation of materials, and effective assessment instruments. The first section on instructional strategies covers facilitating individualized services for hearing-impaired students in the regular classroom, basal readers, reading strategies, suggestions for teaching spelling and vocabulary, strategies for developing written English competence, and games for learning language arts. The next section, on materials developed for hearing-impaired students, offers descriptions and evaluations of the following materials or computer programs: "Apple Tree" Language Program; "Communicative Competence" (a functional pragmatic language program); "Many Meanings" (a multiple meaning workbook); "Reading Milestones"; "TSA Syntax Program"; and "T-Language Kits." Ten recommended readings on language arts are listed, as is a booklet on hearing aids. The extensive appendix is a guide to the assessment of communication skills. Guidelines for evaluation of language and reading problems are followed by recommendations for the selection of assessment instruments and summaries of 15 instruments. Each summary includes title, source, a description, uses, problems, and advantages and disadvantages. (DB)

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LANGUAGE ARTS

Programming Suggestions for Hearing Impaired Students in Elementary Schools

Recommended Resources by the Alberta School for the Deaf

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Alberta Education Response Centre

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LANGUAGE ARTS

Programming Suggestions
for
Hearing Impaired Students
in
Elementary Schools

Recommended Resources
by the
Alberta School for the Deaf

Alberta School for the Deaf
Alberta Education Response Centre
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FOREWORD

This monograph is designed to assist program planning teams in developing Language Arts programs for hearing impaired students in regular classrooms. It is written specifically as a resource for teachers, administrators, speech/language pathologists, audiologists, special needs aides and consultant/itinerant teachers. The text is broken down into two main sections and an appendix. Topics discussed include:

- promising instructional strategies
- description and evaluation of materials
- effective assessment instruments

The challenge of teaching language arts has long been a concern of educators of the hearing impaired. A primary objective in education of the hearing impaired is successful intervention to ameliorate the receptive and expressive English language delay of hearing impaired children. This monograph is by no means all-inclusive. Rather, with the included bibliography, it is intended to point team members toward appropriate instructional approaches and resources which may be beneficial for the student.

I SOME STRATEGIES FOR TEACHING LANGUAGE ARTS TO THE HEARING IMPAIRED STUDENT

Language arts curricula used in regular classrooms are based on certain assumptions about the students' innate language abilities. Even the language arts strands (speaking, writing, listening, reading, viewing) are a natural part of a child's linguistic competence. But for the hearing impaired child, the normal development of competencies in these areas has not always occurred.

In order to integrate a hearing impaired student into a regular classroom, the classroom teacher and school administrator, in consultation with a teacher of the hearing impaired and a speech/language pathologist, need to devise a modified Language Arts program for the student. The following discussion outlines some strategies which may be useful to the regular classroom teacher. Occasionally, a highly competent student may be able to meet the requirements of the regular curriculum but even for the most linguistically competent hearing impaired student, many of the listening strand objectives are simply irrelevant.

1.1 Facilitating Individualized Services for a Hearing Impaired Student in a Regular Classroom

The type of language arts program a hearing impaired student in a hearing classroom receives is dependent on several factors. First, the severity of the hearing loss and the degree of delay in language learning compared to hearing peers will have an effect on how much individualized instruction the student will need. Whether the student communicates orally or with total communication will affect the way he/she is taught. The availability of special equipment, materials and personnel to work with the hearing impaired student may dictate the quality of the program.

It is particularly important that an oral-aural student always have his/her hearing aid and f.m. equipment working properly and that the student be seated so as to be away from distracting sounds such as those made by the heating, or air conditioning system, in order to be in the

best position for hearing the teacher. All hearing impaired students need to be close enough to the teacher to be able to speechread what is said. Hearing impaired students who use total communication need to be positioned so that they can watch both the teacher and the person who is signing (classroom interpreter).

A student who has an excellent oral-aural communication skill and who is able to work successfully at the class level may need little in the way of specialized services. However, it is important to be sure that the student really does understand what has been taught since a strong learning foundation is needed for upper grades when subject content becomes more complex.

A student who has serious language deficits will need a very special program with a lot of personal attention if he/she is to overcome the deficits. Suggestions for special materials and special teaching methods are given elsewhere in this monograph. The following are some recommendations for specialized personnel who may be needed and some suggestions of ways that others may be of assistance.

The regular classroom teacher, consultant for the hearing impaired and the speech/language pathologist should work as a team to establish speech goals and to help the student work toward them. The speech/language pathologist and consultant can also work to improve the student's oral/signed language based on information from the teacher and from diagnostic tests.

If the student uses total communication, the student will need a teacher who is proficient in sign language or an interpreter. It would be advantageous if the interpreter could also act as a tutor since the hearing impaired student may need extra help in understanding what is being taught.

A hearing impaired student with language arts skills well below his/her classmates' level might require assistance from a full time teacher-aide who would work with the student in class and prepare materials to help the student learn in individualized instruction sessions.

Although the hearing impaired student may need a great deal of one-to-one teaching, it is important that the student spend some of his/her school time being independent of an adult assistant and in natural association with peers.

Other students or adults may be able to assist with making materials or in working with the student.

A student at the top of the class may sometimes be assigned to tutor the hearing impaired student in some aspect of the language arts program or to read a story or play a game with the student. A small group of students who work at about the same level as the hearing impaired student could include the student in group projects or educational games.

Students from higher grades might make materials for the hearing impaired student during their art or shop class or they might write stories especially for the student in their language class.

A high school student might be chosen to help tutor the hearing impaired student and to prepare materials for the child as a work-experience project.

Adults could be hired or could volunteer to make pictures, games or written materials for the hearing impaired student or to work with the student on his/her homework or interpret or explain T.V. programs. Parents or other family members would probably like to help and would appreciate suggestions of things to do.

Another approach would be to have someone else direct classroom activities at times in order to free the teacher to work with the hearing impaired individual.

Generally a hearing impaired student will need to spend extra time in learning language; the student may either cut down on time spent in other classes or spend more time working on it beyond school time. Speech therapy, consultations with a teacher of the hearing impaired and language arts tutorials could be scheduled during other class time or outside of the regular school day.

1.2 Basal Readers

The vocabulary and syntax in some stories in basal readers may prove difficult for some hearing impaired students and they may have problems reading with comprehension. Some selections in basal readers are in fact written at a readability level two or three grades above their stated grade level.

It might be useful to the student to have the teacher or teacher-aide rewrite some of the selections with simpler syntax and somewhat easier vocabulary at a lower readability level in order that the student could read them independently with more understanding. Vocabulary which is important to the piece or important to the student's general knowledge should, however, be pre-taught to the student and included in the rewrite.

Samples of readability levels and rewritten excerpts are included for some grade three basal readers.

Fry Readability

Treat Street, *One of our Ghosts is Missing, pp 11-21*
John A. McInnes, Margaret Gerrard, Judity Lawrence, John Rychman, Thomas Nelson and Sons (Canada) Limited, 1977 (first grade 3 book)

p.11 133 syllables per 100 words
8.6 sentences per 100 words

p.16 112 syllables per 100 words
7.75 sentences per 100 words

p.20 123 syllables per 100 words
8.8 sentences per 100 words

Average 123 syllables
8.4 sentences

Readability Level - End of grade 3

Treasure Chest, *Trouble with Trumpet, pp 36-49*
John A. McInnes, Margaret Gerrard, Judith Lawrence, John Rychman; Thomas, Nelson and Sons (Canada) Limited, 1977 (last grade 3 book)

p.41 135 syllables per 100 words
9.33 sentences per 100 words

p.45 143 syllables per 100 words
11.2 sentences per 100 words

p.48 133 syllables per 100 words
8.3 sentences per 100 words

Average 137 syllables per 100 words
9.6 sentences

Readability Level - grade 5

I Can Read Treasure Chest, Nelson

p.14 120 syllables per 100 words
7.72 sentences per 100 words

p.21 129 syllables per 100 words
6.6 sentences per 100 words

p.28 139 syllables per 100 words
4.8 sentences per 100 words

Average 129 syllables per 100 words
6.38 sentences per 100 words

Readability - mid grade 6

Impressions: Under the Sea, Reader; Jack Booth, David Booth, Willa Pauli and Jo Phenix; Holt, Rinehart and Winston of Canada, Ltd.

p.12 135 syllables per 100 words
9.4 sentences per 100 words

p.76 145 syllables per 100 words
6.6 sentences per 100 words

p.200 122 syllables per 100 words
6.3 sentences per 100 words

Average 134 syllables per 100 words
7.4 sentences per 100 words

Readability - mid grade six

Smog Readability

Treat Street, Nelson

p.8 3 words of 3 syllables per 10 sentences
p.52 2 words of 3 syllables per 10 sentences
p.62 2 words of 3 syllables per 10 sentences

word count	=	7
closest	=	3
	+	3
grade		6

Treasure Chest, Nelson

p.7 1 word of 3 syllables per 10 sentences
p.27 3 words of 3 syllables per 10 sentences
p.79 8 words of 3 syllables per 10 sentences

word count	=	12
closest	=	3
	+	3
grade		6

Impressions: Under the Sea, Reader

p. 242 Rewritten

* When Johnnie was a little boy he lived with his parents. They lived in the city of Sinapore on the island of Singapore. Every Friday afternoon his father drove him out to the country. His mother and his older brother and sister went with him. Sometimes his aunt and cousins went too. Johnnie's grandmother lived in the country. They went to visit her for the weekend.

Grandmother lived in a tiny house. The house was in an orchard of fruit trees and flower bushes. The house was built of wood. It had a verandah * in the front. Grandma sat on the veranda in the evening. She lived all alone with a dog called Jackie and a cat called Cat.

Grandma and Grandpa had come down from China to live on the farm. They came a long time before Johnnie was born. After Grandpa died, Grandma came to the city to stay with her grandchildren. But she missed the country. She missed the orchard and she missed her house. Most of all she missed her independence.

Fry Readability of the text p. 242

143 syllables per 100 words
5.6 sentences per 100 words
Readability - end of grade 7

Fry Readability of the rewritten p. 242

139 syllables per 100 words
11.6 sentences
Readability - mid grade 4

* Note: The words between the asteriks were used to compute the readability level.

I Can Read Treasure Chest, *Goldie,* Nelson

p. 28 Rewritten

A bird doesn't often get written about in newspaper headlines. This did happen with an eagle. He lived at the London Zoo, but he escaped. The eagle's name was Goldie. Goldie was away for twelve days. The newspapers wrote about Goldie, the radio talked about him and he was on T.V. The newspapers would tell where Goldie was. Then thousands of people would go to the place to look at the bird. Sometimes, too many people would stop their cars to watch Goldie. Then the police had to be called. They came to keep the cars moving so they would not block the road.

137 syllables per 100 words
10.8 sentences per 100 words

Fry Readability Level - beginning grade 4
Readability Level of the original text - mid grade 8

1.3 Some Reading Strategies for Hearing Impaired Students

A hearing impaired student may learn reading from a basal reader, however, readers designed to develop specific skills or provide remediation for problem readers may facilitate the ability to read independently with comprehension. The stories in these kinds of readers tend to be short and to provide questions which focus the student's attention upon various aspects of the story while developing comprehension and decoding skills. Their syntax and vocabulary are often controlled making it easier for the student to understand. These readers may not enable the student to become a fluent reader of longer more complex stories such as those found in the basal readers, however. One option would be for the student to have help in reading the basal reader and read independently in the other type of reader.

The following are some suggestions for assisting a hearing impaired student in reading. The story might be pre-told to the student to give an idea of what to expect in the story and to help the student make sense of it. This could be done by the teacher or aide or perhaps by a fellow student who is a good storyteller. Part of the story might be told to the hearing impaired student and then the student could read the rest to find out what happened. This technique is motivating and if the student is required to read only the ending, less formidable. If the story lends itself to dramatization, that could make it more real when the student did read it later. The drama could be a spontaneous (with a little coaching) production written by other students who had read the play or it could be written in a brief and simplified version and the hearing impaired student could be a member of the cast.

The story could be read with the student, perhaps with the student and instructor taking turns. Difficult vocabulary should have been pre-taught and the student should sometimes be required to restate the meaning or to use the word in another sentence. Difficult syntax should be made comprehensible and idioms or figures of speech should be clarified. The student might be asked to review what the sentence meant. While the story is being read the student should be asked questions to see if he/she understands and can relate the story to what has already happened and can

predict what will happen. If appropriate, relating the story to the student's own experiences will make it more meaningful. After the story has been read the student could re-tell the story or a part of it as a check for understanding and ability to synthesize.

A word of caution: It may be that the student is brought to understand the story and to answer questions about it, but, the student may not have read it him/herself or be able to read it. It is, therefore, essential to have the student complete a reading assignment independently from time to time.

Children's books that have accompanying audio-tapes could be used with a hearing impaired student who has useful hearing. At first the words could be pointed out in the book by someone else or they could be signed. Later the hearing impaired student might read along with the tape. The student might enjoy doing that with a younger child who can't read yet.

The Language Experience Story is an approach which has been successful with children who have difficulty reading. First the teacher and the student must be involved in the same experience. This is so that the teacher knows exactly what happened. Then the student is asked to tell the story of the event - if the student cannot write accurately the teacher may write down what the student says. The theory is that it should be written exactly as the student tells it even if the sentences are incorrect, because the student knows what it says and understands the story and will be able to read it since it is totally within his/her experience. Later it could be rewritten correctly as a language exercise. Then editing could be carried out in co-operation with the student. After the student has read the story, he/she could be given a set of questions to answer based on the story.

1.4 Suggestions for Teaching Spelling and Vocabulary to Hearing Impaired Students

Most hearing impaired students have difficulty in learning through their sense of hearing and so must be more reliant on their sight. Visual memory is more fleeting than aural memory and some students including hearing impaired ones may have problems with visual learning. This, combined with lack of experience with printed words, may make learning spelling and vocabulary difficulty for some hearing impaired students.

Students who use total communication have the benefit of kinesthetic learning if they practice spelling words by fingerspelling them. Practicing writing the words also aids kinesthetic learning but less effectively.

Spelling rules and patterns should be pointed out to the hearing impaired student so that the student may realize that he/she can spell several words using the same pattern. As would be expected a visual pattern is more obvious to the student than a phonetic pattern.

Games and extra drill can help a hearing impaired student who has problems with spelling. Others in the class with problems could work with the student or fingerspelling could be used by hearing students to improve their spelling as well as that of the hearing impaired student. Computer programs provide good visual reinforcement and practice.

Giving a spelling test may present a bit of a problem when a hearing impaired student is involved. If signs are used there is not always a specific sign for a particular word since a different word with the same concept often has the same sign. It might be necessary to adapt a sign with the understanding that it is only to be used that way as a spelling help. Pictures of the words to be spelled could be used if the word lends itself to a picture definition. Often if the deaf student cannot understand the spelling word in isolation, the student may understand it when it is given in a short meaningful sentence. If the student still doesn't know what word he/she is supposed to write, a hint could be given such as: "It begins with 'p'." It must be remembered that some words will look identical when speechread and some sounds are less audible than others.

Of course, a student should know the meaning of the words he/she is learning to spell and conversely, it would be beneficial for the student to be able to spell new vocabulary words.

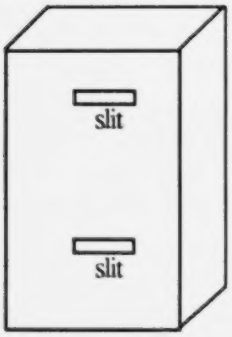
Vocabulary words that are expected to cause difficulty should be discussed with the student in advance of the reading lesson and if the new words have multiple meanings this also should be dealt with.

The hearing impaired student should keep a notebook with vocabulary words in it. It could be set up as a kind of dictionary with looseleaf pages having initial and second letter headings and spaces left for more words. The notebook should include the word, a brief understandable definition or definitions and a picture description of the word if possible. The hearing impaired student may need help in writing the definitions and examples.

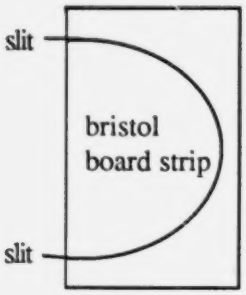
It is important that vocabulary be reviewed, tested and put to use so that the student will internalize it.

A Self-Help Device for Memorizing Vocabulary and Spelling

(This can also be used to memorize other facts)



front view



side-interior view

Materials:
(1) tall box such as a milk carton
(2) a strip of Bristol board
(3) a set of Bristol board circles.

Method:
Open the top of the box and cut a slit near the top of one side and near the bottom of the same side. Cut the bristol board strip as wide as the box and fit it into the box so that one end is taped at the top of the upper slit and the other end is taped just below the bottom slit. The Bristol board strip should be long enough to form a curve that reaches to the opposite side of the box. The word to be answered or spelled should be drawn or pictured with a sign or definition on one side of a circle with the word itself on the other side. The circles must fit through the slits.

The top of the box should be closed and it may be decorated to resemble a computer or a robot.

Operation:
The student looks at the "question" side of the card and decides what he/she thinks the answer is and puts it into the upper slit. Inside the box the circle will reverse itself and the "answer" will come out of the lower slit. This way the student can check the answer.

1.5 Some Strategies for Developing Written English Competence

Hearing impaired people often have to rely a good deal on writing to express themselves. They also often rely on written material to understand the communication of others and to gain information about every day life and about current events. However, expressing themselves clearly in writing and knowing English well enough to read it with comprehension is a massive problem for many of the hearing impaired. Therefore, much more emphasis must be given to developing writing skills for the hearing impaired student than for the normal hearing student. A hearing impaired student needs to write frequently about a variety of topics. Sometimes, because of this frequency and perhaps because of his/her own lack of experience and knowledge, it is difficult for a hearing impaired student to think of a subject to write about. Originality may sometimes have to take second place to finding a topic for the writing project.

The following are some suggestions of materials and strategies to motivate writing. It is generally advisable to use material which is visual. Sometimes the student will be working from a source which has the story or information already written along with the pictures. The student can read the story but must not copy it since the task is to write the story in his/her own words.

Of course the student can write about his/her own experiences. The student can write a journal about daily activities or write about an interesting happening or recent trip. Fieldtrips or special school events also provide worthwhile subjects. Pictures of what happened during the event can be drawn or photographed to provide a concrete organization for the student's written report. (A member of the staff should probably decide on which pictures would be important to the report and should perhaps produce them as well.) Later the student could use the same pictures to illustrate a report for the class newsletter or to illustrate a talk given to another class.

Sequence pictures which the student can arrange in the correct order and then write about are useful. Primary reading books often tell the story in pictures as well as in words. Pictures from an old reader could be cut out and

then sequenced and written up. If the copyright allows copies of the material to be made for school use, a story from a new book could be copied mechanically, the printing cut off or whited-out and the pictures that are left recopied to provide pictures for writing a story.

Cartoons may provide a useful basis for story writing or the speech balloons for a cartoon may be eliminated and the student may invent his own. **Family Circle** cartoons provide single pictures which can be the basis of a whole story.

A storybook without words gives a lot of detail and plot that can be transformed into a student's written story - if the story seems childish it could be written as a project for the kindergarten class to have read to them. The hearing impaired student could also write fairy stories or other stories he/she knows well for younger children. These stories could have illustrations and be made into large books or miniature books or picture strip stories that wind between two posts as "movies."

Filmstrips and films are available with captions or they may be signed for the hearing impaired student. Filmstrips are an excellent source of writing topics since it is possible to stop the action to write about the pictures. If they are captioned, after first reading the story, the student may operate an individual projector so that the caption is not seen with its picture. Children's movies are often also available in books and the pictures from these books can be used to help the student recall the film story.

If the hearing impaired student has a television decoder he/she could be given a homework assignment of watching a captioned program to write a story or report on. If the student doesn't have a decoder a family member could interpret the program for the student.

The illustrations found on book jackets are often suitable for writing inspiration. The student doesn't have to know what the book is about;the student can write the story that the picture makes him/her think of.

Sometimes a writing project may need some time to be completed, which is fine, because writing that is too brief may be a problem with some hearing impaired students.

A system of reward or recognition for length or writing or number of words written may be used to encourage more volume.

It is a good idea to discuss errors or perhaps a pattern of errors with the student and to have the student recopy the story correctly after the teacher has changed the mistakes. The number of mistakes to be corrected and the number of re-writes necessary to achieve a clean copy are often prohibitive unless the writing can be completed using a word processor or a computer.

1.6 Games for Learning Language Arts

Why should games be used in teaching hearing impaired students language arts?

Playing a game itself develops the student's pragmatic language functions allowing the student to ask for something, to give directions, to expand on a topic, to be assertive in an effective and appropriate way and to be a good loser or winner.

Games give motivation for learning. Often it is essential that a hearing impaired student practice a skill or memorize material through drill; games can make this work enjoyable.

Games allow the hearing impaired student to interact with his/her peers. They can let even a weak student win sometimes because of the way they are set up or because of the "luck of the draw."

Games to be used to teach language arts may require adaptions or specially made playing cards. By changing the subject of a game while using the same equipment children are able to play with familiar rules while learning a different skill and the teacher can save the time that would have been spent developing a new game.

Some types of games with suggested adaptions and rules will be discussed along with some ideas of what they could be used to teach. Some thought should lead the teacher to develop other ways to use them to teach a specific learning requirement of an individual hearing impaired student.

Board Games

Language Arts games may be played with commercial board games using cards made to fit what is being learned, but it is important that the actual playing of the game not take up too much time since the real object is to practice and learn a language skill. Board games allow the student to answer questions or match appropriate information while rewarding correct responses with a move on the board. An ambitious individual could create new cards for a Trivial Pursuit game that would require the players

to use specific language structures or to define words or answer questions about reading stories.

School made board games may have less complicated rules and be more flexible than commercial boards and they don't have to be difficult to construct. These are some suggestions for making games. Use Bristol board for the games board - half a large sheet cut horizontally is a good size. Put gummed circles or squares in a path that leads from a "start" to a "finish." Stickers may be used to create a theme such as "space adventure" or to feature the students' favourite movies or cartoons. Stickers mixed in among the squares or circles can have rules that let the player take extra turns or advance further if he/she lands on them or be forced to miss a turn or move backward. Set-backs or bonuses may be written onto the board at various points along the path instead.

A regular die could be rolled to indicate how many spaces to move or a block could be made into a die with colours to match the colours of the game board spaces glued onto the blocks sides or directions for moves printed on them. Instead of that, a spinner could be made from a round or square piece of Bristol board with an arrow attached through its centre with a paper fastener. Sections of the spinner card would be marked off for the arrow to land on. Circles or squares glued on the sections could match the colours of the board spaces or have numbers for how many spaces to move or have written directions for the moves. A change to a different spinner can make a new game. The players will need men to move and these may be taken from a commercial game or improvised with some small things that fit the spaces.

Cards that ask questions to be answered or that can be correctly paired need to be made for each lesson that is being learned. Cut lots of cards out of Bristol board with a paper cutter and they will be ready for future use.

These are some of the possible uses for board games, however, others can be developed to suit a hearing impaired student's individual needs. Spelling can be drilled by having the words written on cards placed face down, the teacher may ask the student to spell the word or the players after they are finished their turn can ask the next

player to spell. If the student spells it correctly he/she may move on the board, if not, it becomes the next person's turn. For variety, a player might be required to spell two or three words at once and then make the moves. Two sets of cards can be used to learn vocabulary - one set with pictures of definitions and the other set with the vocabulary words. Either set could be face down and the player would draw one card and then find a match from the face up set spread on the table. Another approach would be to have the vocabulary words in one set and sentences with blanks that the words would fit into in the other. Syntax could be taught by having part of a sentence to be matched with another part or a sentence with a blank to be matched with appropriate words. For example, "I saw a cat ...." on one card and "yesterday", "tomorrow" and "every day" on cards in the other set. Or the player could be asked to give the correct verbs for sentence blanks using only one set of cards. Sentences could be written like this: "John (to go) to Boy Scout Camp each summer." If the students are playing without the teacher's help, answers can be written on the back of the cards so that they can check them.

The same approach of taking a turn at the game after answering correctly could be used while playing games on paper or a blackboard. Games like Hangman with each of two players having a hangman and trying to hang the other one's first or Join the Dots to Complete Squares or Tic-Tac-Toe could be played this way.

Generally board games are best played by only a few students. They would be suitable for learning centres or small group activities.

Barrier Games

Barrier Games involve two players seated on opposite sides of a barrier - a piece of cardboard partially folded so it will stand up will do for a barrier. One player or both players depending on the game will have items on their side of the barriers that the other player cannot see.

One type of game might be this: One player has different coloured blocks and he/she moves one of them in relation to the other two. The students then practice giving correct

questions and answers until the one without the block knows where the moved block is. Here are examples:

"Is the block on top of the red block?"
"No, it is not."
"Is it between the red block and the yellow block?"
"No, it isn't between the red and yellow blocks."
"Is it under the yellow block?"
"Yes, it is."

Another barrier game has identical items on both sides of the barrier. One player tells the other player how to move the items so that they are in the same positions on both sides of the barrier. This game offers the first player a chance to give instructions that are clear enough to follow and the second player a chance to practice following descriptions.

An identical pair of pictures with a set of similar objects on each can be used to learn to make an accurate description or to ask questions to obtain the descriptions. The set might be pictures of chairs, for instance. One player would say, "It is a big chair, it has wooden legs, the seat has a cushion, the chair is green..." The player would have to continue adding to the description until the other player could correctly identify the chair. Or the other player could look at his/her own set of pictures and ask questions about the chair the partner had in mind until the partner identified it correctly.

Barrier games may need to be monitored by the teacher or the aide so that the hearing impaired student can receive help in forming correct sentences when necessary. Although these games are usually spoken or signed it would be possible for the students to write questions and answers on pages to be exchanged.

Card Games

Some commercial educational card games might be suitable for teaching language arts to a hearing impaired student depending on the individual and his/her program. However, blank cards can have questions or answers or pairs to be matched typed on them and the students can play real card games such as Snap, Fish or Rummy with

them. Players could draw cards to make up pairs of questions and appropriate answers until one player had no unpaired cards left in a game like Rummy or two players could put down cards and try to snatch up pairs first in a Snap game. A game of Fish would involve a player asking the player next to him/her for a card to go with one in his/her hand and fishing for one from the pile if none were available.

Variations of the games would include pairing synonyms or antonyms, or pairing words according to their relationships such as animals and babies - the "cow" card with the "calf" card or pairing an object and an action that can be done with it - "chair" and "sit."

Through the Air Games

These games usually involve a caller or a leader who gives instructions or asks questions or provides answers across a distance, hence, through the air. The adult may be the leader or the player who has won the last round. If the players are to say something it is important to establish a pattern of what is to be said before the game begins.

In the game of Bingo the caller might ask questions and the players would put a chip on the correct answer if it were on their Bingo card. For instance, tag-questions requiring a negative answer could be used: "Joe is a tall boy, isn't he?" the correct response would be:
"No, he isn't."

Twenty questions could be played using Yes/No questions to identify a secret item. A game of Who am I? could be played to develop the use of attributes. The leader might say, "I am large. I have brown fur, I have sharp claws, my tail is short ...." until someone asked if it was a bear. Geography is a game that could be played to conjoin phrases with "and" and to practice alphabetical order and review geographical names. The players take turns saying something like this: "I went to Alberta and took an apple." "I went to British Columbia and took a beaver," and so on through the alphabet. Using a map reference could be allowed for those who couldn't think of places with weird first letters. Simon Says could be played in the normal way or by saying "don't."

Through the air games lend themselves to being played by larger groups, but care should be taken to be sure that the hearing impaired student gets a turn often enough to learn what the game is teaching. These games can be set up to develop skills in the use of numerous syntactic structures. Most of them require little construction time.

II. MATERIAL DEVELOPED FOR HEARING IMPAIRED STUDENTS - DESCRIPTIONS AND EVALUATIONS

Materials that have been developed specifically to meet the needs of hearing impaired students may be purchased commercially from various publishers.

The greatest advantage in purchasing materials for the hearing impaired lies in presenting the regular classroom teacher with reliable examples of means and methods for accommodating the special needs of the integrated hearing impaired student, and in providing language development materials that can also be used with other language delayed students within the classroom or school.

The speech/language pathologist who works with the hearing impaired student, or the consultant/itinerant teacher for the hearing impaired who is facilitating the integration will be able to provide catalogues which include specialized materials for the students in question. Some publishers such as Dormac, Inc. were established solely to meet the needs of hearing impaired students and their teachers.

A brief selection of materials for the hearing impaired population has been reviewed and the descriptions and evaluations follow.

2.1 APPLE TREE Language Program

Marcia Anderson, Norma Jean Boren, Janis Caniglia, Emmylou Krohn
Dormac Inc.
P.O. Box 572
Beaverton, Oregon 97075

Apple Tree stands for A Patterned Program of Linguistic Expansion Through Reinforced Experience and Evaluations. The language program consists of six workbooks, a teacher's manual and a pre-post test booklet, each of which may be purchased separately.

The authors have developed ten sentence patterns using transformational grammar as a starting point. They use these names for parts of sentences: N1, N2, N3 which stand for subject noun phrase, object noun phrase and indirect object noun phrase; V and V(be) for verb and nd verb to be and Where, When and Adjective. Sentence Pattern One is N + V (be) + Adjective and an example of a sentence using this pattern would be "The baby is cute." It is stated that the program spirals going from the known to the unknown while reviewing and expanding on known concepts.

Disadvantages:
It would be a serious mistake to take the workbooks to be a complete language program. The teacher's manual explains that it only applies to written language and needs to be used in conjunction with a natural language approach. Besides that, the workbooks do not provide sufficient practice in some of the structures to allow most students to internalize them. Quite a bit of the material in the workbooks require the student to put a word or phrase into a blank in a sentence, although the student may understand how to do that correctly, the student may not have had enough experience to generalize the concept being learned to his/her own written language.

Apple Tree Language Program is not always approached in a developmental sequence. There is an over emphasis in the early books on the present tense using the verb to be and the present progressive tense. This may lead to the student not understanding when to use the verb to be because rules for its use can be confusing, and, to using it when it is not needed. As well, the present progressive tense is not often used in reading material so it is difficult

to transfer the student's language understanding into reading comprehension since reading books more frequently use the simple past and present tense.

The Apple Tree Program only deals with simple sentences and is limited in its coverage of negative and interrogative structures, so, although the workbooks are said to be based on transformational grammar, they are in fact limited in their use of it. Since the symbols used in naming the parts of the sentences are not universally used and are partly words and partly letters, it might be more useful to employ the names "noun phrase" and "verb" or to categorize them by the questions they answer such as "who?" and "what?"

Advantages:
The workbooks are designed for hearing impaired students and they provide exercises for many of the language concepts which give hearing impaired students problems. The material is organized in a way that the student can gain a feeling of mastery while working through it.

Recommendations:
Parts of the Apple Tree Program could be used to provide remediation for specific language problems a student might be having and as a guide for the development of additional practice work to overcome these problems. If it is to be the major component of a written language program, Apple Tree Language should be augmented by more exercises developed using some of the workbooks' formats, by more practice in writing full sentences independently and by other less structured language work.

2.2 Communicative Competence (A Functional-Pragmatic Language Program*)

Charlann S. Simon
Communicative Skill Builders, Inc.
3130 N Dodge Blvd
P.O. Box 42050
Tucson, Arizona 85733

Communicative Competence is a large kit which offers materials and directions for language therapy for students with various degrees of language disfunction with an age range of beginning school to high school.

The kit contains a monograph which provides information about language acquisition and a framework for developing communicative competence using a diagnostic-prescriptive approach.

There is a teaching manual which provides several hundred teaching suggestions and sample I.E.P.s for activities using stimulus materials from the kit.

Four filmstrips with 25 sequence situations and an individual viewer are included along with a photo-diagram book which reproduces the pictures from the filmstrips and gives photographs for modifying words and phrases and giving specific labels. The book also has diagrams and explanations of appliances, vehicles and sports.

A set of 644 stimulus cards provide coloured photographs and drawings of situations for the student to describe using various language structures. There are fourteen spinner boards that give various stimuli as introductions to language discussion.

Disadvantages:
Some of the strategies would need a clinical setting for which personnel might not be available. The amount of material and the information about its use is massive and some time needs to be spent in becoming oriented.

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* Note: This kit is strongly recommended for all programs where hearing impaired students have been integrated into regular classrooms.

Advantages:
The material in this kit is excellent. The pictures are interesting and non-ambiguous and should stimulate the student to produce his/her best language. The teaching suggestions are clear, easy to carry out and should lead to very effective teaching. A great many aspects of language are dealt with and the explanations of problems and their treatment are carefully done.

Although the program deals mainly with spoken rather than written communication, many of the lessons could become writing projects with very little adaptation.

A good number of the lessons include activities involving more than one student and would be suitable for use with a hearing impaired student and a hearing peer. Some activities could be expanded to lessons for the whole class. On the other hand many of the suggestions could be done by a hearing impaired student as independent writing assignments.

Because of the scope of the Communicative Competence Program, it could be used at different grade levels with students with a variety of language problems.

The suggestions for evaluating language and for writing individualized educational program goals are most helpful in a diagnostic prescriptive situation.

Recommendations:
It is recommended that the Communicative Competence Program be studied and implemented if at all possible.

2.3 Many Meanings (A Multiple Meaning Workbook - Book I & II)

Suzanne Dedrick, James Lethyzak
Dormac Inc.
P.O. Box 572
Beaverton, Oregon, 97075

Many Meanings is designed for deaf students with hearing students as a referent. Since it is based on word meanings that 67% of grade four students and average thirteen year old deaf students recognize, it would probably be more useful to high achieving hearing impaired students.

The workbook covers twenty-five words with three meanings each. For each word there are three pictures with the meaning written above them; a question requiring that sentence to be matched with the meanings; three other pictures to match with a selection of five phrases; five sentences using the word to be matched with the meanings and three pictures for the student to write sentences about using the word. After each five sets of words there is a review and a cummulative review of the words.

Disadvantages:
The words included in this book are not necessarily those that the student will be using in class and since they are limited to three meanings each, some meanings for some words are not included.

Advantages:
The pictures show the different meaning clearly. There is sufficient practice with each meaning to allow the students to learn them and be able to work independently in the workbook. It is important to be aware of multiple meanings in order to read with understanding and this workbook initiates this awareness.

Recommendations:
The **Many Meanings Workbooks** could be used for general vocabulary development or portions of it could be selected for use because they deal with words the student is using in school. More exercises could be developed using new words with the workbooks format.

2.4 Reading Milestones

Stephen P. Quigley, Cynthia M. King, Editors
Dormac, Inc.
P.O. Box 572
Beaverton, Oregon, 97075

Reading Milestones is a reading series designed for deaf students but suitable for other language-different students as well. It was developed from information gained from the research done for the Test of Syntactic Abilities - Quigley et al - and information given by the Center for the Study of Reading at the University of Illinois at Urbana - Champaign. The series systematically introduces vocabulary and syntax while controlling reading comprehension and decoding skills and the content. There are eight levels in the series with ten readers and workbooks at each level. Reading Milestones first level is designed for the beginning reader and a student who has successfully completed the eight levels should be able to read most grade four books with comprehension. It is recommended by the editors that a student work through the entire series since the skills taught are hierarchical.

Disadvantages:
If the entire series is purchased it is expensive, although it provides a reading program for several years.

Until all the reading skills and an understanding of syntactic structures have been taught by the total Milestones series, it is not particularly easy for a student to move from Milestones to a basal reader. Therefore, the student should move from the eighth level to regular grade four material when all the skills needed to understand basal readers have been mastered.

Advantages:
Since a typical reading level for a deaf school leaver is about grade 4 or 5, it would be very advantageous to use materials that would give a student the skills to read at a grade four level with comprehension before the student finished his/her elementary education.

Reading Milestones was designed specifically to overcome language and reading deficits of hearing impaired students. (However, the series' high volume of sales would seem to indicate that it fulfills a need of many other problem readers as well.)

Quigley and King state that when deaf students have not learned the syntax necessary to read with comprehension but have learned the vocabulary, they often read word by word without understanding what the phrases, sentences or the story mean. In the first three levels the stories are printed in chunks to help the student become aware of groups of words which mean something together. For example: "The boy sat on the fence at night." In later books the student may be shown to make loops on the page with his/her finger in order to recognize the groupings. Research says that chunking is useful in overcoming word by word reading. Hearing students are more likely to chunk naturally because that is the way they have heard language.

Reading Milestones has been developed so as to allow the hearing impaired child to become a competent independent reader. Sometimes when a student is being taught to read in a book that is very difficult for him/her to understand, it is tempting to explain and re-tell the story and not have the student read it by him/herself.

Recommendations:
Unless a hearing impaired student in an integrated classroom is able to read successfully at the level of his/her peers in the basal readers used in the class, the use of **Reading Milestones** is highly recommended. If the hearing impaired student approaches minimum skill level to read a basal reader, having the student work in both it and **Milestones** might be appropriate.

If possible, the teacher should look at the series and select a level that would match the hearing impaired student's independent reading level and then purchase books at that level and above. A scope and sequence chart and a teacher's manual which would help in choosing the appropriate level are included with each level's Book Kit.

Sharing **Reading Milestones** with other problem readers in the school would make the cost somewhat less prohibitive.

2.5 TSA Syntax Program

Stephen P. Quigley, Desmond J. Powers
Dormac Inc.
P.O. Box 1699,
Beaverton, Oregon 97075

The TSA Syntax Program was developed to remediate specific problems of English syntax which were assessed by the Syntactic Abilities - Quigley et al. The whole TSA Syntax Program consists of twenty workbooks covering nine syntactic structures with a teacher's guide for each of the structures. The sysntactic structures are: negation, conjunction, deteminers, question formation, verb processes, pronominalization, complementation and nominalization. The workbooks and teacher guides may all be purchased separately. Teacher guides provide behavioural objectives and suggestions for games and activities to reinforce what is learned in the books.

Vocabulary and concepts used in the workboks have been kept at a simple level so as not to interfere with the learning of the language principles.

Disadvantages:
The TSA Syntax Program is designed for deaf students ages ten and up. Although the work would be easy for a hearing grade three student because of his/her well developed language base, some of it might prove difficult for a hearing impaired student.

Advantages:
The program was specifically designed for hearing impaired students and it addresses their problems with English syntax. The workbooks teach skills beginning with very easy exercises using the particular structure being taught and advancing until the student should be capable of generating his/her own correct sentences using the structure.

The teacher's guides provide analysis of the syntactic problems and offer suggestions for games and activities which are excellent. The suggestions could be expanded by the teacher for use in other situations.

Recommendations:

Specific rules are demonstrated and taught, some of which a hearing adult would not be necessarily be aware. It would, therfore be useful to the teacher to look at the workbook for a given syntactic structure and find out what the rules of the structure are in order to teach them fully. Consider determiners for example. A rule says that if you can count something, it uses the determiner "a" for one of it; if you cannot count the thing the determiner "some" must be used, e.g. "a dog" and "some water". A second rule says that after the initial use of "a" or "some" the same things will be referred to as "the", e.g. "I saw a dog. The dog had big teeth." Other rules state that if there is only one of a thing in existance or in a particular setting, "a" is never used, only "the", e.g. "the earth" or "the refrigerator" in the house. The superlative takes "the" as do ordinal numbers, e.g. "The tallest boy was the second person in line." Because of a hearing impaired student's limited language experience, the student may not have internalized some of the syntactic rules and may need drill to learn rules or to relearn confused rules developed by himself/herself.

The answers to the questions are provided beside the exercises so that the student can work independently. If the student appears to be copying answers when he/she doesn't understand, it might be necessary to cut the answers and exercises apart with a paper cutter and make a ''new'' exercise book using a hole punch and rings.

The nine structures are listed in order of difficulty and the easier ones at the beginning of the list will be more frequently used at the primary school level.

2.6 T-Language Kits

Heather Tillotson
Alberta School for the Deaf
6240 - 113 Street
Edmonton, Alberta T6H 3L2

This program was developed to help deaf students internalize transformational grammar using kinesthetic-tactile senses as well as vision to enhance their learning. T-Language Kits are based on the Fitzgerald Language Key with the addition of transformers which allow the student to generate new language structures. The student arranges cards containing parts of a sentence into a sentence using the Key as a guide. Then the student writes the sentence in his/her book and creates questions for it by making transformations. Different T-Kits and transformers allow the student to create all types of questions and at a more advanced level it can be used to change active voice to passive voice or to rewrite and understand embedded structures.

Unfortunately, T-Language Kits are not presently available commercially; however, it is possible to make your own and thereby create an individual program for an individual student.

Disadvantages:
This program must be used along with a more natural language approach which allows more creative expression.

Making the materials might seem like a large project for the teacher and it does take some time and thought.

Quite a lot of time needs to be spent by the student learning a particular sentence structure before it is internalized and can be generalized independently.

Advantages:
Because of a lack of language input and because of limited use of auditory memory and learning, it is often essential for a hearing impaired student to have syntactic patterns clarified and practiced. T-Language Kits allow for this and help to overcome memory and learning deficits caused by lack of hearing by using kinesthetic memory and learning. The understanding and use of English

language is greatly improved for most hearing impaired students using T-Language Kits.

Having developed T-Kits for the student,the teacher will find that the student can work independently and that monitoring his/her progress and discussing any problems is very easy. Since the student feels in control of his/her language work, T-Kits are usually highly motivating.

Recommendations:
A different T-Kit should be developed to help the student learn each sentence structure that he/she is unsure of and the student should be encouraged to work through a Kit quickly to help establish the pattern in memory.

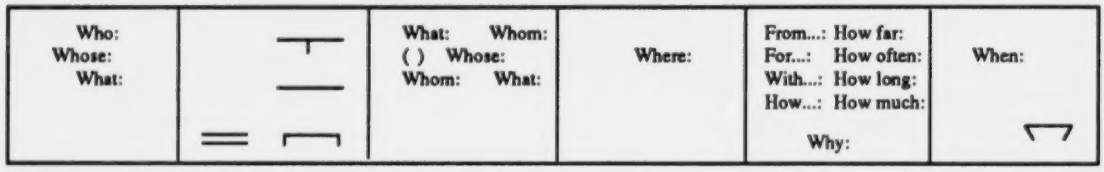
Sentences used in the Kit may be created to suit the principle being taught using topics familiar to the student or taken or adapted from readers such as **Reading Milestones** which provide chunking in the same phrase groupings used by the Fitzgerald Key. Kits comprised of short stories may be used to review several syntactic structures already presented.

T-Language Kit Construction

A Kit consists of a set of cards, each set containing groups of words to fit under a Fitzgerald Key which lies on the student's desk. Each kit stresses a principle to be learned or contains sets of sentences that can be put in order to form a story. The student puts the cards in the correct sequence and then writes the sentence in his notebook underlining it in the Key colours.

Here is an example of how this works:

This is a Fitzgerald key:



These are cards:

Blake	lost	Pat's frisbie	in the park		yesterday

The next step is to turn over the subject card. The student then asks a question about the card by using the appropriate word from the Key for the word(s) on the card that he/she no longer sees, and then copies the other words into a notebook in the order that they appear on the desk. All subject questions are asked in this manner.

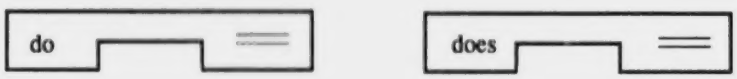
Next, the student takes a transformer - a specially shaped card which fits over the Key - to help make the verb transformation necessary for further questions.

	Who:		What: Whom: ( ) Whose: Whom: What:	Where:	From...: How far: For...: How often: With...: How long: How...: How much: Why:	When:
did	Blake		Pat's frisbie	in the park		yesterday

Suppose that the card for "Pat's frisbie" becomes the unknown part of the sentence: The student first writes the suitable word from the Key headings above the card, then goes to the left side of the string and writes each part of the sentence in the left to right order remembering that he/she must change the verb to the root form when he/she comes to the verb symbol on the transformer. The correct question would be: "Whose frisbie did Blake lose...?" when the card is folded in half.

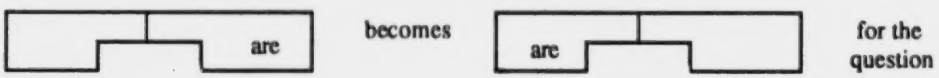
Using the same transformations the student can ask other questions about other parts of the sentence.

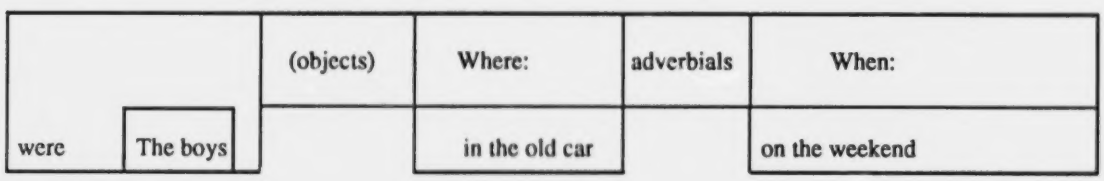
A reversible transformer with "do" and "does" on the opposite sides is used in the same manner to ask questions in the present tense.



The student decides which side of the transformer is needed.

Questions using the verb to be in the past or present tense need a different type of transformer. These transformers have movable arms which change to the position-initial for the question form leaving the other side of the transformers blank.





The card on the far right of the above could be reversed to give the question "When were the boys in the old car?" writing the words from under the Key from left to right.

Questions with modals such as "will, can, or could" need a telescoping transformer which can be stretched out for the question:

"Shelley can swim under water for one minute," gives us this type of question.

			(objects)	Where:	(adverbials)	When
can	Shelley	=		under water	for one minute	

"How long can Shelley swim under water?" when the last card in the string is reversed.

Compound sentences may be used, but it is usually best to put aside one line of the sentence while writing questions on the other.

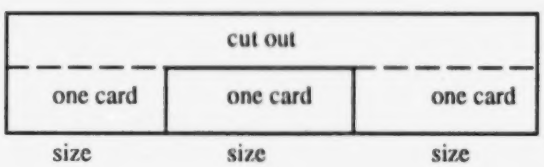
(Who)	(verb)	(what)	Where:	(adverbials) When: ⌐¬
Sean	went		to the station	last night but ⌐¬
he	missed	the train		

Note: ⌐¬ is the symbol for conjunctions.

Making T-Language Kits

Materials:
1. Bristol board
2. Coloured pens or pencils
3. A ruler
4. A papercutter
5. Envelopes
6. Containers (e.g. cut-corner files) for the Kits

Method:
1. Cut a 1 3/4 strip of Bristol board to fit across the width of the student's desk.
2. Mark the strips in 6 parts.
3. Copy a Fitzgerald Key onto it.
4. Cut individual cards the same size as the sections on the Key.
5. Write parts of sentences corresponding to the Key headings on the cards.
   Put numbers and labels on them so they don't get mixed up.
6. Put the sentences into envelopes labelled and numbered to correspond with the sentences.
7. Put the envelopes into different containers according to the skills being taught.
8. Make transformers to fit over the Key using Bristol Board.



2 Key heights

To use the material, a student will need a Kit or an envelope from the Kit, a Key, the appropriate transformer(s), a pen or pencil and a notebook.

III. RECOMMENDED READINGS ON LANGUAGE ARTS AND THE HEARING IMPAIRED STUDENT

It is difficult for a teacher encountering a hearing impaired student for the first time to understand the problems the student faces in learning English and to be cognizant of his/her instructional requirements. Therefore, some suggestions for reading have been included here.

King, C.M. and Quigley, S.P. *Reading Milestones Teacher's Guide*. Dormac, Inc. Beaverton, Oregon, 1982.

For a brief summary of reading problems encountered by deaf students read the beginning of a *Reading Milestones Teacher's Guide*. For an explanation on how the *Reading Milestones* series is designed to overcome the problems, read on.

Quigley, S.P. and King, C.M. *Reading and Deafness*. College-Hill Press, San Diego, California, 1985.

Reading and Deafness addresses a subject which has received much less attention than language and deafness. The book provides a great deal of pertinent information.

Quigley, S.P. and Paul, P.V. *Language and Deafness*. College-Hill Press, San Diego, California, 1984.

Language and Deafness provides a great deal of information about the topic including recent research.

Quigley, S.P. and Powers, D.J. (Ed.) *TSA Syntax Programs - Teacher's Guides*. Dormac, Inc. Beaverton, Oregon, 1979.

Use the teacher's Guides from the *TSA Syntax Program* for each structure for specific descriptions and useful teaching strategies.

Quigley, S.P., Steinkamp, M.W., Powers, D.J. and Jones, B.W. *Test of Syntactic Abilities: A Guide to Administration and Interpretation*. Dormac, Inc. Beaverton, Oregon, 1978.

Use *Test of Syntactic Abilities: A Guide to Administration and Interpretation* as a general guide to language problems of hearing impaired students.

Simon, C.S. *Communicative Competence: A Functional-Pragmatic Approach to Language Therapy*. Communication Skill Builders, Tucson, Arizona, 1979.

Read *Communicative Competence: A Functional-Pragmatic Approach to Language Therapy* for an in depth understanding of language development and problems.

Simon, C.S. *Suggested Strategies for a Functional-Pragmatic Approach to Language Therapy*. Communication Skill Builders, Tucson, Arizona, 1979.

Suggested Strategies for a Functional-Pragmatic Approach to Language Therapy provides description of language elements to be learned and suggestions for lessons and individualized educational programs (I.E.P.).

Although the two books above are not specific to hearing impaired language acquisition they are pertinent to the topic. Both of them are included in the Communicative Competence Kit or they may be obtained individually.

IV. RECOMMENDED READINGS ON HEARING AIDS

Rubin, Maxine. *All About Hearing Aids*. Alexander Graham Bell Association for the Deaf. 3417 Volta Place, N.W. Washington, D.C. 20007

All About Hearing Aids is a booklet designed to help parents understand hearing aids. It explains how hearing aids work, how to take care of them and what to do in case of problems. The booklet would also be useful as a quick reference for the classroom teacher. Labelled diagrams of a hearing aid are shown followed by an explanation of how it works and what the parts are used for. A list of equipment used in caring for a hearing aid is given along with advice on how to take care of the aid and its components. A simple daily checklist gives specifics for morning and nightly maintenance of the aid. A chart of listening checks provides a list of problems, their possible causes and check-tests, as well as remedies for the problems.

Disadvantages:
The booklet does not provide specific information about different types and models of hearing aids.

Advantages:
This booklet provides a clear, non-technical but comprehensive set of information useful to anyone involved in the care and use of hearing aids.

Recommendations:
It is recommended that booklets be purchased for the parents and the teacher of a hearing impaired student in the regular classroom.

APPENDIX

ASSESSMENT OF COMMUNICATION SKILLS

For a hearing impaired student placed in an elementary grade classroom, the diagnostic test battery may vary depending upon the level of audition, use of auditory skills, onset of deafness and additional handicapping factors of the client. The assessment should include:

- **Expressive Language**
  - a) Spoken (and signed if that mode is used)
  - b) Written

- **Receptive Language**
  - a) Spoken
  - b) Written

- **Reading and Academic Achievement**
  - a) Vocabulary
  - b) Comprehension
    Sentence and Word Meaning
    Paragraph Meaning
  - c) Language
  - d) Spelling

- **Speech Intelligibility**

- **Speech Perception Skills**

- **Expressive Signing Skills (where appropriate)**

- **Receptive Signing Skills (where appropriate)**

The assessment should also screen for perceptual difficulties that may be present if that has not been done in earlier assessments.

Beyond standardized tests, the student's daily work in reading and language as well as the language used for expressive/receptive social contact should be assessed informally.

Samples of the student's written language let the treatment team know in a concrete way what the student understands as well as how he/she can write. This is important because oral-signed language and written or read language may be at very diverse levels and because the student may not understand the individual words he/she is saying or hearing/seeing, but only what familiar phrases mean. The student may not realize that the same words can be used with variations in meaning and intent.

The student should be re-evaluated after the program has been in place to see if it is working or if it requires additions or modifications.

1. Some General Problems and Recommendations

Since much of a hearing impaired person's learning is visual and movement is fleeting and visual memory is short, it is important to make learning materials available in print or pictures rather than depending too much on oral/signed explanations or discussions. For a hearing impaired student, oral instructions are transitory, and may or may not have been heard correctly. The student, therefore, needs to clearly see the teacher's mouth so that speechreading may be used as a supplement to aural language reception. But even speechreading (lipreading) is not fail safe so printing instructions on the blackboard and using picture displays help provide yet another visual verification for what the student thinks he/she heard.

The student should be encouraged to vocalize or subvocalize as a memory aid using verbal and/or kinesthetic memory to support the visual memory, e.g. when spelling, say the word or its phonemes and say the letters. As well, fingerspelling can be used to aid memory for spelling and for words using kinesthetic memory.

The aim should be for "mastery" learning if possible. The student needs the feeling that it is possible to understand materials thoroughly and to do work well. In order to develop independent learning skills the student needs to be provided with some work at his/her mastery/competence level that he/she can do independently while developing language and reading skills.

It is particularly important for the hearing impaired student to read with understanding. The student may have missed information because of background noise in the environment, or have lacked the visual memory to process lengthy instruction through lipreading and/or sign reading.

In order to read the student will need decoding skills and orthographic skills (recognizing the sounds made by letters and sounding out words). Developing phonetic skills may be difficult for a student with limited auditory strength. Speech therapy sessions could be used to reinforce the sound/symbol relationships.

2. Reading and the Language Base Needed for Reading

NEEDS	POSSIBLE PROBLEMS FOR THE HEARING IMPAIRED	STRATEGIES FOR AMELIORATION OF THE PROBLEMS
An appropriate level of reading for the student's age and ability.	The reading materials are too advanced for the child's language base.	1. Work to give the student an adequate language foundation. 2. Choose material suitable to his understanding of language or material that is linguistically cotrolled. 3. Rewrite the reading material of the class at an easier level. 4. Explain vocabulary, difficult syntax and the plot of the story to the child before he begins reading it. (This method can cause difficulty if the student comes to rely on explanations rather than reading as the primary source of information.)
Decoding skills for phonemes, and words.	Phonemes and words may cause problems in understanding.	1. Relate print to the verbal phonemes and words learned in speech class. 2. Use signed and/or fingerspelled words to add kinesthetic memory to visual memory to enhance the learning process. 3. Practice spelling using fingerspelling or writing as well as verbalizing letters.

NEEDS	POSSIBLE PROBLEMS FOR THE HEARING IMPAIRED	STRATEGIES FOR AMELIORATION OF THE PROBLEMS
Understanding of Vocabulary A. Basic knowledge of word meanings	Student may have limited exposure to words because he did not hear them or he was not included in discussion.	1. Teach vocabulary as it is needed and reinforce new vocabulary. If possible provide pictures (maybe cut from a worn copy of the text) to match with vocabulary words as well as with simple written definitions. 2. Encourage all those who deal with the hearing impaired child to talk with him more.
B. Semantic Relations: Understanding phrases, idioms and other figurative speech.	Although a hearing impaired student may understand the meaning or meanings of a word in isolation, they may be unclear about what is meant by it in a phrase and quite bewildered by the words used in an idiom.	1. Make sure the child is aware that words may be used in special ways so that he will be alert to something that seems not to make sense so that he can ask for an explanation. 2. Explain what is meant by the phrase or the figurative speech. 3. Give the student practice exercises that deal with figurative speech.
Understanding referent words and words that connect parts of sentences.	The hearing impaired student may lack experience and knowledge needed to understand adverb or pronoun referent words. For example, the underlined words in this sentence, unless the words in previous sentences to which they refer are understood. e.g. <u>They</u> told <u>her</u> to leave <u>it there</u>."	1. Provide the student with explanations and practice in relating referent words to their correct antecedent. 2. Check often to see that the student is understanding these words.

NEEDS	POSSIBLE PROBLEMS FOR THE HEARING IMPAIRED	STRATEGIES FOR AMELIORATION OF THE PROBLEMS
To use comprehension skills required for reading. These comprehension skills would include: determining the main idea, noting relevant detail, determining cause and effect, establishing sequence, and drawing inferences and conclusions.	Hearing impaired students generally have little trouble with noting detail, but depending on the difficulty of the reading material could have problems with any of the others. Drawing inferences and conclusions can be particularly difficult because of the students' lack of experience that would allow them to generalize what might have happened or will happen. Conjunctions joining parts of sentences affect the meaning of the sentences in ways of which the hearing impaired student may be unaware. Consider, for example, these conjunctions used in the blank in this sentence: so, but, while, until, "It was cold __ they went to the movies."	Provide a story directly within the child's own experience or even a story about the child and use that story as an example for the child to develop comprehensive skills. Then help him to apply the same analyzing techniques to other stories. Provide practice and guidance to the student for particular comprehension skill weaknesses. Provide specific practice to aid in understanding the particular meaning of each conjunction.
C. Syntax: inflection markers, word order and sentence deep structure.	Student may not understand the significance of inflection markers that indicate plurals, tenses or possessives. Student may not understand how changing words order or adding words to a sentence changes its underlying meaning: Consider these: He has the cash. Does he have the cash? He does have the cash? He doesn't have the cash." Nor may the student understand the significance of more complicated syntactic rules used to create passives, relatives, complements and nominals.	1. The student may do exercises designed to help him figure out words through structural analysis of root words, prefixes and sufixes and their meanings. 2. The student may do exercises designed to provide practice with specific syntactic structures. 3. The student may manipulate parts of a sentence to develop or change a syntactic structure. 4. The meaning of syntactic structures in the reading material may be explained to the student if he doesn't understand them.

3. Some Language Problems and Recommendations

Although a great deal of language learning and practice is necessary for success in reading, the hearing impaired student also needs written and spoken language for self-expression.

Facility with spoken language can be enhanced by having someone spend time listening to the hearing impaired student and talking to him/her in order to give the student a model from which to expand and correct his/her own spoken language. Pragmatic language needed to communicate may be reinforced during speech therapy sessions, as well as in the classroom.

The hearing impaired student may have difficulty in writing effectively or creatively if he/she lacks experience with a subject or has not internalized information about it. It may, therefore, be necessary to provide more than a topic or a suggestion of what to write about to the hearing impaired student.

Difficulties with written expression may mean that the student will want to write only what he/she has read instead of explaining it in a different way, so the student may need specific practice in rewriting and summarizing material.

Hearing impaired students must rely on their vision for information to a greater extent than hearing students do. This tends to develop strong visual perception and insight into what the hearing impaired student has observed. A picture, a set of pictures, a filmstrip or a film that provide a story idea or information for a report are better sources of inspiration for a hearing impaired student than a discussion of a topic or written material about it, although skill with these must also be developed.

After the hearing impaired student has written a story or report, errors may need to be discussed with the student and suggestions for corrections need to be explained. If the student has a particular pattern of deviant language, it should be pointed out to him/her and then the student should be given experience in writing the normal form.

Often corrections are extensive and time consuming. The use of a classroom computer or word processor makes corrections a much easier task.

4. Assessment Instruments

Expressive Language

Spoken:

- Carrow Elicited Language Inventory
- Gates - McKillop-Horowitz Reading Diagnostic Test
- Grammatical Analysis of Elicited Language

Written:

- Apple Tree Pretest - Postest
- Gates - McKillop-Horowitz Reading Diagnostic Test
- Test of Expressive Language Ability
- Test of Written Language

Receptive Language

Spoken:

- Carrow Elicited Language Inventory
- Grammatical Analysis of Elicited Language
- Test of Language Development - Intermediate or Primary

Written:

- Canadian Achievement Test
- Stanford Achievement Test
- Test of Receptive Language Ability
- Test of Syntactic Abilities

Reading and Academic Achievement

Vocabulary

- Canadian Achievement Test
- Carolina Picture Vocabulary Test
- Gates - McKillop-Horowitz Reading Diagnostic Test
- Peabody Picture Vocabulary Test
- Reading Skills Competency
- Stanford Achievement Test
- Stanford Diagnostic Reading Test
- Woodcock Reading Mastery Tests

Paragraph Meaning

- Canadian Achievement Test
- Reading Skills Competency Tests
- Stanford Achievement Test
- Woodcock Reading Mastery Tests

Sentence and Word Meaning:
- Canadian Achievement Test
- Reading Skills Competency Tests
- Stanford Diagnostic Reading Test
- Stanford Achievement Test
- Woodcock Reading Mastery Tests

Spelling:
- Canadian Achievement Test
- Gates - McKillop-Horowitz Reading Diagnostic Test
- Stanford Achievement Test

Speech Intelligibility:
- Articulation Screening Assessment
- Gates McKillop-Horowitz Reading Diagnostic Test
- Goldman-Fristoe Test of Articulation
- Ling Phonetic Level Speech Evaluation

Speech Perception:
- Craig Lipreading Inventory - Sentence Recognition Test
- Craig Lipreading Inventory - Word Recognition Test
- Gates - McKillop-Horowitz Reading Diagnostic Test
- Stanford Diagnostic Reading Test

Expressive Signs:
- Gates - McKillop-Horowitz Reading Diagnostic Test- Oral Reading and Reading Sentences
- Grammatical Analysis of Elicited Language
(These tests to be observed by a sign language specialist who will assess the student's competency.)

Receptive Signs:
- Carolina Picture Vocabulary Test
- Grammatical Analysis of Elicited Language
(This test to be observed by a sign language specialist to assess the student's ability to comprehend the sign language used.)

5. Recommendations for the Selection of Assessment Instruments

Some suggestions to ignore parts of tests or to provide special explanations to the hearing impaired student or to give tests using sign language have been made. Tests may not be valid if administered in a different way to a different population than that for which they were designed, but, they may still give useful information in developing a profile of an individual hearing impaired student.

A hearing impaired student must learn language skills in school that have already been established much earlier - perhaps even before school in a hearing child. The hearing child generally doesn't need to be taught these skills nor will he/she be tested on them; this means that a language test designed for a hearing student may not pinpoint a hearing impaired student's deficits. On the other hand, a hearing impaired student may have been taught language mechanics and may score well on a language test involving them despite having very serious syntactic problems.

Language tests designed for hearing impaired students are generally too easy for and not pertinent for hearing students of the same age and grade. It is, therefore, very difficult to give language arts tests which accurately assess a hearing impaired student's strengths and deficits while making a valid comparison of him/her with his/her hearing peers. It is recommended, however, that the same tests that others in the class have had be given to the hearing impaired student when feasible. Stanford Achievement Tests and Canadian Achievement Tests are similar standardized tests which cover many aspects of language arts and it is suggested that which ever is used in the school be administered to the client.

5.1 Assessment Instrument Recommendations According to Types of Students

The four categories of hearing impaired students that follow have been chosen arbitrarily and are not the only possible ones. These are only general guide lines for testing; individual students may have strengths or weaknesses which would make a different test grouping more relevant. For example, the student might be a fairly skilled reader but be weak in written language skills. Members of the assessment team may be familiar with some tests not included in this project that they would prefer to use. They might feel that some tests were unnecessary or that time constraints would not allow for completion of all the tests suggested. On the other hand, they might wish to use more of the tests than recommended to get a clearer picture of some aspect of the student's language arts ability.

Several tests that involve reading are listed to provide a choice. The tester should select from them to cover the various aspects of reading and language. It is necessary, however, that each of the areas of language arts be tested so selections of tests or sub-tests must be made to include all areas.

It is advisable that a speech/language pathologist in consultation with an audiologist should decide which speech, speechreading and audition tests are suitable for the individual hearing impaired student being assessed.

If a hearing impaired student communicates using total communication it is important that his/her expressive and receptive sign language be evaluated by a sign language specialist. Except for the Carolina Test of Picture Vocabulary, commercial tests of student's sign language skills were not found. However, a sign language specialist would probably have developed appropriate assessment instruments. If not, an unstructured sample of receptive and expressive language - for example, a discussion of a familiar subject - should be assessed. Signs in a structured mode should also be judged using the signs for the oral part of one of the formal tests given. A video-tape of the signing sessions would make it easier to evaluate the student's abilities.

If the hearing impaired student has problems learning in an oral mode it is very strongly recommended that sign language be used even if he/she is inexperienced with it.

6. Summary of Assessment Instruments

Tests for Students with Seriously Delayed Language Arts Skills and with Weak Auditory Skills	Tests for Students with Seriously Delayed Language Arts Skills and with Strong Auditory Skills	Tests for Students with Mildly Delayed Language Arts Skills and with Auditory Skills	Tests for Students with Mildly Delayed Language Arts Skills and with Strong Auditory Skills
Grammatical Analysis of Elicited Language	Grammatical Analysis of Elicited Language	Grammatical Analysis of Elicited Language	Grammatical Analysis of Elicited Language
Test of Expressive Language Ability	Test of Expressive Language Ability	Carrow Elicited Language Inventory	
Test of Written Language	Test of Written Language	Test of Written Language	Test of Written Language
Test of Receptive Language Ability	Test of Receptive Language Ability	Test of Language Development-Intermediate - Primary	Test of Language Development-Intermediate-Primary
		Test of Syntactic Abilities	Test of Syntactic Abilities
Canadian Achievement Test OR Stanford Achievement Test	Canadian Achievement Test OR Stanford Achievement Test	Canadian Achievement Test OR Stanford Achievement Test	Canadian Achievement Test OR Stanford Achievement Test
	Peabody Picture Vocabulary Test		Peabody Picture Vocabulary Test
Stanford Diagnostic Reading Test	Stanford Diagnostic Reading Test	Stanford Diagnostic Reading Test	Stanford Diagnostic Reading Test
	Woodcock Reading Mastery Tests	Woodcock Reading Mastery Tests	Woodcock Reading Mastery Tests
	Gates-McKillop-Horowitz Reading Diagnostic Test	Gates-McKillop-Horowitz Reading Diagnostic Test	Gates-McKillop- Horowitz Reading Diagnostic Test
Reading Skills Competency Test	Reading Skills Competency Test	Reading Skills Competency Test	Reading Skills Competency Test

6.1 Grammatical Analysis of Elicited Language (GAEL) Complex Sentence Level

Jean Moog, Anne Geers
Central Institute for the Deaf
818 South Euclid
St. Louis, Missouri 63110

This test is the most complex of three tests in the series - Pre-Sentence, Simple Sentence and Complex Sentence. It was designed to evaluate spoken and/or signed English. Normative tables are provided for Normal Hearing ages 3 to 6, Severely Hearing Impaired ages 8 to 12 and Profoundly Deaf ages 8 to 12. GAEL uses toys, games and activities to elicit specific sentence structures in target sentences. The sentences are obtained from the student by having a generalized model of the sentences given by the tester for the student to use to generate his/her own sentences. These are called prompted sentences, and by repeating the exact sentence as given by the tester, imitated sentences. There are 88 sentences in the test testing eighteen grammatical structures: articles, noun modifiers, subject nouns, object nouns, noun plurals, personal pronouns, indefinite and reflexive pronouns, conjunctions, auxiliary verbs, first clause verbs, other verbs, verb inflections, infinitives, participles, prepositions, negatives and wh-question words. Percentile rank and standard scores are provided for each category for both prompted and imitated productions.

Disadvantages:
The GAEL tests are quite time consuming. The Complex Sentence test probably needs five or six hours to administer and score. In order to administer the test and mark the results down on the score sheet it is probably necessary either to video-tape the test or to have a second person write on the score sheet.

Because even the prompted production sentence rely on a model, it is possible for a student who is adept at imitating to produce a correct sentence structure even though it is unfamiliar to him/her. On the other hand, students who are poor imitators or who wish to express themselves in a different way may be unduly penalized.

Advantages:
The test is very carefully constructed specifically for hearing impaired students while taking into consideration the developmental language patterns of hearing students.

The activities, toys and games used in the test provide a motivating and comfortable situation for the student being tested which should elicit his/her best effort.

GAEL - Complex Sentence tests most of the important grammatical structures in sufficient depth to allow for accurate diagnosis of the student's strengths and weaknesses in spoken/signed English and appropriate prescriptive teaching to ameliorate problems.

Recommendations:
This Grammatical Analysis of Elicited Language is strongly recommended to be given to any hearing impaired student being considered for integration into a hearing class providing the testing schedule allows time for it. If a student has difficulty with the Complex Sentence test, the Simple Sentence test could be given.

A word of caution -
The GAEL measures spoken/signed, not written language, and it cannot be used as an indication of a hearing impaired students ability to write grammatical English sentence structures.

6.2 Test of Expressive Language (TEXLA)

Gary Bunch
G.B. Services
10 Pinehill Crescent
Toronto, Ontario
M6M 2B6

TEXLA is designed for hearing impaired students and normed for ages 8, 9, 10, 11, and 12 with statistics for a comparative group of grade one hearing students.

The grammatical categories and the vocabulary used in this test are the same as those used in the Test of Receptive Language Ability except that the verb *to be* and the verb *to have* are tested in the present tense. The difference in the tests is that in the expressive test the student must provide the word that is required either from another form of the word with a picture or from a picture alone. The test has ninety items and may be given in a shortened form, (TEXLA short) with sixty items.

Disadvantages:
Some of the items are ambiguous in that several answers might be correct within the category of grammar. e.g. "The boy _____ an apple," (an apple is in his hand). Carries, is carrying, will eat or has, would all be appropriate, however, the accepted answer is *has*. The TEXLA is a very limited test of expressive language in that it tests only some principles and does not require the student to produce sentences of his/her own.

Advantages:
The TEXLA may demonstrate that the vocabulary and the principles of grammar used in the test are within the student's lexicons of written expression. The TEXLA may give a better picture of the student's knowledge than the TERLA since he/she is required to generate structures.

Recommendations:
This test could be used to compare the student with other hearing impaired students and to identify some areas of weakness for remediation.

6.3 Carrow Elicited Language Inventory (CELI)

Elizabeth Carrow
Teaching Resource Corporation
100 Boylston Street
Boston, Massachusetts 02116

The Carrow Elicited Language Inventory (CELI) tests the student's ability to imitate a given spoken sentence accurately. The test consists of fifty-one sentences and one phrase ranging in length from two to ten words. It examines these grammatical forms: pronouns, prepositions, conjunctions, articles, adverbs, verbs, infinitives, and gerund. The responses are scored for substitutes, omissions, additions, transpositions, reversals, jargon and misarticulation.

The test was designed for students from ages three to eight to diagnose those with language problems, however, it is not suitable for students with speech that is not intelligible.

Disadvantages:
The CELI is only suitable for hearing impaired students with good auditory skills or excellent speech reading and speech skills.

The people working with the student need to realize that being able to imitate language does not necessarily mean the language has been internalized or even that the student fully understands what he/she is saying.

Advantages:
The Carrow Elicited Language Inventory covers a fairly large number of grammatical structures. It has precise rules for scoring and should give an accurate assessment of a student's ability to imitate sentence structures. It could also provide an opportunity to assess the student's speech intelligibility although that is not really the purpose of the test.

Recommendations:
This test could be used for a student who may appear able to cope in a regular class without special services to check his/her ability to succeed. If the student cannot accurately imitate sentence structures in a one to one situation of the test he/she will have more serious problems in á regular classroom and will likely need some special services.

6.4 Test of Written Language (T.O.W.L.)

Foothills Educational Materials
13027 Lake Twintree Road, S.E.
Calgary, Alberta T2J 2X2

T.O.W.L. (ages 7.0 - 18.11) Normed for different ages. Criteria for different ages are not the same. The test measures written language by spontaneous and contrived (set answers required) methods.

Subtests

1. *Word Usage* - Sentences with a missing word. The test checks for commonly made errors rather than testing specific parts of speech errors. Errors made by hearing students are not necessarily those made by the hearing impaired.

   The subtest has 25 items:
   - 12 verbs
   - 8 plurals
   - 3 pronouns
   - 2 superlatives

2. *Story* - Students write a story about 3 pictures. The story is judged for vocabulary and thematic maturity. Rules for judging and examples of analyzed work are provided.

3. *Hand Writing* - Student's story is analyzed for handwriting. Criteria for handwriting and analyzed examples are provided.

4. *Spelling* - 25 words are taken from basal spellers. Words are dictated and given in context.

5. *Style* - A test of punctuation and capitalization. 25 sentences without punctuation or capitals are to be re-written correctly.

Disadvantages:

1. The test is too short to be comprehensive.
2. The pictures for the story are somewhat vague and ambiguous. They may hinder a hearing impaired student because of lack of vocabulary and knowledge related to the subject of space travel.

3. It may not be possible to administer the spelling test to a student who relies on fingerspelling and signing.

Advantages:

1. The test includes a simple analysis of spontaneous written language.
2. The test is easily administered and relatively easily scored.
3. Criteria for scoring are provided.
4. The handbook provides additional criteria and suggestions for indepth informal analysis of written language. (This could be useful in further analyzing a student's progress.)

6.5 Test of Receptive Language Ability (TERLA)

Gary Bunch
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10 Pinehill Crescent
Toronto, Ontario
M6M 2B6

The Test of Receptive Language Ability is designed for hearing impaired students and is normed for hearing impaired students ages 7 to 11 with statistics for a comparative group of grade one hearing students. The test consists of ninety items which demonstrate the student's recognition of singular and plural nouns, pronouns, descriptive adjectives, comparative adjectives, prepositions, past, future and present progressive verbs. The format requires the student to choose a picture which represents a word or words printed on the page from two or three pictures.

A short version, TERLA Short, uses 58 of the original 90 items.

Disadvantages:
The test does not provide a comprehensive enough analysis of the hearing impaired student's receptive internalized rules to judge his/her suitability for admittance to a hearing class. The plural nouns tested are only those with -s or -es endings. Only subjective and objective pronouns are tested. It is not possible to test many of the irregular past tense verbs with the limited number of items used. Because of the length of the test and because it is designed using words chosen for their familiarity to young hearing impaired students, it cannot be comprehensive in its analysis of a student's deficits nor can it predict if the student's knowledge extends beyond the specific principles or perhaps even the specific words used in the test. The test only tests using single concepts and does not test the student's ability to understand words in phrases or sentences.

Advantages:
The test has been developed for use with hearing impaired students. It is easily administered and does not require special communication skills of the tester. The test should

point out specific deficits in the understanding of some rules of grammar. It is a quick test to administer. Generally the pictures are effective in conveying the principles and the words are appropriate to the vocabulary knowledge of hearing impaired children.

Recommendations:

The Test of Receptive Language Ability could be used to make a comparison of the student with other hearing impaired students his/her age and to see if the student understands some basic grammar principles. The test would be suitable for use in identifying weaknesses for remediation.

6.6 Test of Language Development (TOLD-P) Primary
Test of Language Development (TOLD-I) Intermediate

Foothills Educational Materials
13027 Lake Twintree Road S.E.
Calgary, Alberta
T2J 2X2

Comments:
The test is supposed to be administered orally but it could be signed. If visual memory is a problem perhaps it could be used in a written form. (This would invalidate it but could provide useful information.) It should be used in conjunction with other tests because it is rather limited. It uses a linguistic model.

Subtests:

1. Sentence Combining (25 items)
   - conjunctions:
   "and", "but" (possibly "when", "so", "because")

   - embedding a "when" clause - limited examples

   - embedding an adjective clause - limited examples

2. Characteristics (50 items)
   True or false syllogistic conclusions, e.g. "All trees are oak."
   (A lack of vocabulary knowledge would interfere with the student's understanding of the facts.)

3. Word Ordering (20 items), e.g. Make a sentence from these words: "party, fun, was, the"

4. Generals (25 items)
   Defining categories (e.g. "Venus, Mars, Pluto")

5. Grammatical Comprehension (40 wrong items - 10 right items) one word is incorrect. It tests:
   a. Verbs: tenses
      subject-verb agreement
      deviant past tense ("commed")
      double negatives
      incorrect past principles
      past participles used inappropriately

b. Pronouns:
subjective pronouns in the objective position
objective pronouns in the subjective position
incorrect word for third person plural, reflexive pronouns (limited examples)

c. Superlatives non-word (baddest)
used as a comparative (limited examples)

d. "Between" used for "among" (one example)

Disadvantages:

1. Does not pinpoint specific weakness
2. Limited items for some of the specific items being tested
3. Does not test many aspects of language
4. Lack of vocabulary knowledge could cause problems in two sub-tests (vocabulary knowledge is not the skill being tested)
5. The test is probably too hard for most primary grade level hearing impaired students

Advantages:

1. Quick
2. Easy to administrate
3. Will show general weakness

Recommendations:

1. TOLD-1 might be suitable to an older child working at grade 4+ level since the vocabulary and concepts are rather mature. TOLD-P might be suitable for a younger student.
2. Could be used to compare a child who is close to the language level of his peers with the norms.
3. Grammatical errors not obvious because of imperfect speech of the child would become more apparent.
4. It would test aspects of language and logic that are not normally tested in a classroom setting and suggest areas needing remediation.
5. It would be most suitable for a quick assessment of a student working close to the class level.

6.7 Test of Syntactic Abilities; Screening Test-Form 1

Stephen Quigley, Marjorie Steinkamp, Desmond Powers, Barry Jones
Dormac Inc.
P.O. Box 752
Beaverton, Oregon 97075

The Test of Syntactic Abilities consists of a Screening Test and a Diagnostic Battery of twenty tests. The Diagnostic Battery requires about ten hours to administer while the Screening Test needs about one hour. For the purpose of this analysis only the Screening Test will be considered although the personnel working with the student in the classroom might wish to select tests from the Diagnostic Battery to assess specific weaknesses.

The Test of Syntactic Abilities was normed on deaf students ages 10.0 through 18.11 years who had a sensorineural hearing loss of 90dB or greater and on a comparative hearing group ages 8 through 10.

A comparative study was done in Canada by Clarke and Rogers at U.B.C. using students with sensorineural conductive and mixed hearing losses of 20dB to 120dB. The students ranged in age from 8 to 18.

Although the TSA is not generally administered to deaf students below the age of ten, it is possible that a student suitable for integration into a hearing classroom might be older than his classmates or have a lower decibel hearing loss than the deaf students in the original normative group or be exceptionally competent in language. Therefore, the test might be appropriate in some of the cases under consideration.

The Screening Test assesses these syntactic structures: Negation, Conjunction, Determiners, Question Formation, Verb Processes, Pronominalization, Relativization, Complementation and Nominalization. This order of structures generally approximates the developmental order in which deaf and hearing students internalize them.

The Screening Test provides four multiple choice answers for each of 120 items. Each structure is tested several times throughout the test. There are five types of questions:

(1) four sentences are given, none of which is correct,
(2) four choices are given for a blank in the initial sentence,
(3) one or two sentences are given and the student must pick a sentence that is another way of saying the original sentence(s),
(4) a short answer to a question is to be chosen,
(5) the student must choose a sentence that shows the meaning of the first given sentence.

Disadvantages:
The difference between the right answer and the wrong answers are sometimes very slight and since many deaf students tend to be surface readers or scanners, it is very difficult for them to identify the correct answers. Because of many hearing impaired students' lack of sufficient and varied language experiences, some of the syntactic structures may be unfamiliar to them. These factors would make the test, particularly the higher developmental level sections, quite difficult for all but the most able hearing impaired grade three students.

Advantages:
The Test of Syntactic Abilities was constructed specifically for deaf students and reflects years of thorough and expert research. It is able to pinpoint a student's areas of weakness to allow for specific remediation. The same research project offers a massive set of remedial workbooks and teaching suggestions tailored to the needs of the individual student. In order to test English syntax without having problems of lack of vocabulary understanding, the vocabulary of the TSA has been kept at about the grade one level.

Recommendations:
Although the Screening Test for the Test of Syntactic Abilities would be difficult for most of the students under consideration, it should provide those dealing with the student a profile of structures that may be emerging so that a prescriptive teaching plan may be developed. For those structures, specific tests from the Diagnostic Battery might be useful in further defining the student's strengths and weaknesses.

6.8 Canadian Achievement Tests, Level 12 and 13 Form A

Canadian Test Centre
McGraw-Hill Ryerson Ltd
330 Progress Ave.
Scarborough, Ontario
MlP 2Z5

The Canadian Achievement Tests were based on the California Achievement Tests but revised to be appropriate for Canadian curricula. The tests include Phonetic Analysis, Structural Analysis, Reading Vocabulary, Reading Comprehension, Spelling, Language Mechanics and Language Expression.

Level 12 is designed for grade 1.6 to 2.9 and level 13 for grade 2.6 to 3.9. Although this analysis is based on level 12 most comments also apply to level 13.

Phonetic Analysis - The students are required to choose from three printed words one that begins with or ends with the same sound as a word spoken by the teacher. Then they have to pick a word that has the vowel sound as a given printed word from a choice of four. The vowel sounds are all quite similar within each question.

Structural Analysis includes making compound words, indicating numbers of syllables, understanding contractions and recognizing root words, suffixes and prefixes.

Reading Vocabulary asks the student to select a word that is a synonym or an antonym of the key word. There are no pictures in this sub test.

Reading Comprehension - The student is given three passages to read with question on each passage.

Spelling - Sentences are given with a word underlined which the student must mark as right or wrong. Almost all the spelling errors are phonetically correct so that they will sound right to the student. This may be an advantage to the hearing impaired student since he/she generally learns spelling through sight rather than phonetics. Test results for deaf students show spelling results several grades above the level being tested.

Language Mechanics - Part A asks the student to check if a sentence needs a capital in a choice of positions or if it does not need one. Part B asks if a given punctuation mark is needed, in which position, or is not needed.

Language Expression - This test gives a sentence with a blank in it and two words to choose from to complete the sentence. It tests the student's knowledge of pronouns, verbs, comparatives/superlatives and plurals.

All sub-tests that are read by the student are timed.

Disadvantages:
In general the test seems quite difficult. The Phonetic Analysis requires the student to listen or to say words to himself/herself and to recognize quite small phonetic differences. This is very difficult for a hearing impaired student and this sub-test should probably not be administered. The Structural Analysis is also difficult for the hearing impaired student and would provide limited information as to his/her understanding of word structures. Although the spelling test would be easy for the hearing impaired student, it also would not give information as to how the student could spell on his/her own.

Advantages:
Reading Vocabulary, Reading Comprehension, Language Mechanics and Language Expression would provide a reasonable assessment of the student's understanding at the tested level. If the entire class were to be tested with this test, it would provide some measure of comparison between the hearing impaired student and his classmates.

Recommendations:
If this test is to be given to a hearing impaired student, only some of the sub-tests are likely to provide valuable information. It should probably be given only for general comparative purposes if the others in the class have had it.

6.9 Peabody Picture Vocabulary Test; Revised Form A

Dunn, L.M., and Dunn, L.M.
Psycan/AGS
101 Amber St.
Markham, Ontario L3R 3B2

The test consists of 175 sets of four pictures requiring identification of one of each four pictures from having heard its name. It is suitable for persons from 2 1/2 to 40 years of age. The test taker is only required to respond to items between his basal and ceiling point.

The test manual states that the test is suitable for those who can see and hear well.

Uses:
The test could be used to get some idea of some of the words a hearing impaired student knows and to get an idea of his/her ceiling. It would not, however, be a valid test. The results should only be considered valid for a student with a minimal hearing loss.

Problems:

1. If the student is given the test orally and must rely somewhat on speechreading, no provision has been made in the test design to assure significant visual differences among the four words represented in each item. This puts the hearing impaired student at a disadvantage since it is not a speech discrimination test for hearing subjects.

2. If the student is tested using sign language, most of the test items for children above age 7 are not suitable for these reasons:
   a. The sign is iconoclastic (it makes a picture of the item.)
   b. The sign is vague or ambiguous (it does not necessarily represent that word and only that word clearly.)
   c. The sign used is also the sign for a simpler synonym. (The student does not know the word but appears to because he/she knows another word with the same sign.)
   d. There is no sign for the word.

Signing the test may put the deaf student at an advantage if the sign gives a clue, or at a disadvantage if the word cannot be clearly conveyed with a sign. Since sign language is a language in itself, it could be said that the student's knowledge of English vocabulary may not have been tested but rather, knowledge of sign language vocabulary is being tested.

3. The test could be given in fingerspelling. This would present the precise word in an unambiguous manner, however, the hearing impaired student would be required to recognize the spelling of the word. A hearing student would not be required to understand a word from its spelling in order to answer test items correctly. Fingerspelling would tend to depress the results of the test.

6.10 Stanford Diagnostic Reading Test; Red Level 3rd Edition

The Psychological Corporation
Academic Press Canada
55 Barber Greene Road
Don Mills, Ontario M3C 9Z9

The Red Level of the Stanford Diagnostic Reading Test is designed to give a more detailed diagnosis of reading skills with particular emphasis on the low achiever. This level is for the end of grade one or two or low achievers in higher grades. It includes tests of: Auditory Vocabulary, Auditory Discrimination, Phonetic Analysis, Word Reading and Sentence Comprehension.

Test 1 - Auditory Vocabulary - has 36 items. A question is read and the student must pick the appropriate picture for it from a set of three. If the hearing impaired student had sufficient audition to discern the questions, it could be used as an auditory vocabulary test, otherwise, it could be used to test the student's signed vocabulary by presenting the test in sign language.

Test 2 - Auditory Discrimination - has two parts with 20 items each. The child is required to respond with a yes or no as to whether or not a pair of words begin with the same sound in Part A or end with the same sound in Part B. Although the words are supposed to be read to the student, they are printed on the test so the student can analyze them visually and decide even if he/she cannot discriminate aurally. The words in the test are fairly easy to discriminate either through hearing or sight.

Test 3 - Phonetic Analysis - has two parts with 20 items each. Part A requires the identification of initial phonemes. The word is read to the student and he/she must choose the appropriate sound from a list. There is also a picture of each item. It may be easy for a student to pick the correct answer if he/she knows how to spell the word. If the student needs it, signing assistance could be used but not fingerspelling.

Test 4 - Word Reading - has 42 items. A picture is given for three sets of one word answers and the student must pick a word from each set that is suitable to the picture. This test is to be done independently.

Test 5 - Sentence Comprehension - Part A has 32 items. A printed sentence is given with 3 pictures and the student must choose the picture that is described by the sentence. In order to understand the sentences the student must be able to understand various grammatical structures so the test can be considered to be a test of receptive language. Part B consists of 16 items - pictures are not used. The student is required to use closure to complete a sentence by choosing from three words provided. The correct answers require understanding of fairly complex sentence structures.

There is also a practice test which includes recognizing letter names which have been said to the student.

Grade equivalencies, stanines and percentile ranks are given for each test as well as suggestions for grouping children according to their stanine scores. An Instructional Placement Report to determine students' instructional needs is provided for each group.

Disadvantages:
The use of the above rankings for students requiring signing to augment their adution may not be appropriate because the heavy emphasis put on phonetics may make the test difficult for those with severe or profound hearing losses. However, they may have developed decoding skills other than phonetic ones which could mean that their reading ability might be underestimated by the test.

It would be useful to have another vocabulary test that provided printed words to describe the pictures for students with limited audition and limited receptive signing.

Advantages:
The Stanford Diagnostic Reading Test is designed for use with low achievers. The Red Level test would seem to be at a suitable level for hearing impaired students entering a grade three class.

The diagnostic material and suggestions for grouping and treatment could be very useful to the classroom teacher. Since the test may be administered to a group, the whole class could take the test and a comparison with the hearing impaired and the rest of the students be made and then the

student could be placed in the most appropriate reading group.

The sentence comprehension tests offer a more comprehensive variety of sentence structures than do most tests and since problems in understanding sentence structures are common for hearing impaired students, this part of the test battery is very useful.

6.11 Woodcock Reading Mastery Tests; Forms A and B

Richard W. Woodcock
American Guidance Service, Inc.
Publishers' Building
Circle Pines, Minnesota 55014

The Woodcock Reading Mastery Tests are five individually administered tests with a range from kindergarten to grade twelve. The individual tests are: Letter Identification, Word Identification, Word Attack, Word Comprehension and Passage Comprehension. The results obtained by combining performances on all five tests is called Index of Total Reading. Approximately twenty to thirty minutes is needed to administer the test using basal and ceiling levels.

The Letter Identification Test has 45 items including upper and lower case Roman, cursive and specialty typeface. It is expected that a nearly perfect score would be obtained by the end of grade four.

The Word Identification Test gives 150 words from beginning reading level to superior twelfth grade. The client must name the word but doesn't need to know its meaning. If a student uses a sign to convey an answer, it is necessary that he/she does know the meaning of the word, however, and this would probably lower the students ceiling point on the test. This test would be more appropriate for a hearing impaired student with good speech skills.

The Word Attack Test requires the student to identify nonsense words using phonics and structural analysis skills.

The Word Comprehension Test has 70 items and uses an analogy format - for example "Bird is to fly as fish is to ___." The student reads silently and gives the answer. This test would seem to test reasoning ability as well as word comprehension.

The Passage Comprehension Set uses a modified cloze structure and has 85 items - some of the simpler ones have illustrations. The test would appear to test the understanding of language syntax and semantics as well as passage

comprehension. It seems to be a difficult test but it could be useful for checking the student's understanding of language principles.

Disadvantages:
In general the tests seem difficult for a primary grade hearing impaired student. Since a student with a hearing loss most often has reading problems due to not understanding rather than recognizing letters or words, or not having word attack skills, the Letter and Word Identification and Word Attack Tests may be of limited value, except as they provide targets for remediation.

Although the Word Comprehension and Passage Comprehension tests are more suitable, they seem to become difficult very early in the tests, thereby providing a limited number of items to test the hearing impaired student's skills.

Advantages:
If the student happens to have a problem in addition to his/her hearing loss that makes letter recognition difficult, the Letter Recognition Test provides a quick and accurate analysis.

The Word Identification Test could be useful in demonstrating the ability of a student with comprehensible speech to read and pronounce words.

The Letter Attack Test provides targets for remediation of decoding strategies.

The Word Comprehension and Passage Comprehension Tests provide useful information about a student's ability to reason using words and logic and to understand language principles in addition to reading comprehension.

6.12 Gates - McKillop-Horowitz Reading Diagnostic Test, 2nd Edition,revised 1981

Teachers College Press
Columbia University
New York, N.Y. 10027

The Gates-McKillop-Horowitz test is an individual diagnostic reading test for grades 1 to 6. Tests for Oral Reading, Reading Sentences, Words - Flashed and Untimed, and Knowledge of Word Parts - which has seven subtests, are all intended to be done orally. Here are two subtests in the Auditory Test and three sub-tests in the Written Exression Test.

Oral Reading. Seven paragraphs ranging in difficulty from grade 1.0 to grade 12 are given the student to read until his/her ceiling (11 or more errors in two paragraphs) is reached. The tester marks for hesitations, omissions, additions, repetitions and mispronunciations. There is also a checklist of difficulties and word pronunciations.

Reading Sentences (Oral). The student is required to read four sentences and they are scored in the same manner as the Oral Reading sub-test. The juxtaposition of some of the phonemes in the sentences makes the sentences rather difficult to pronounce.

Words: Flash - Uses a tachistoscope to expose a word for a half second and then requires the student to say the word. The words are graduated in difficulty from two letter words to thirteen letter words and there are forty words in the test.

Words: Untimed - The student reads words while the examiner checks and records the student's method of attack. The student may have half marks if the second attempt is correct. A ceiling is reached with ten consecutive errors. There are forty words ranging from "passenger" to "treacherous." A checklist of difficulties includes such items as: "lacks versatility, if first sounding or blending is wrong, does not work out others."

Knowledge of Word Parts: Word Attack

(1) Syllabication - The student is asked to pronounce 17 multisyllabic nonsense words.

(2) Recognizing and Blending Common Word Parts. The student is to pronounce 12 nonsense words with initial blends. For example:

I	II	III	IV
spack	sp	ack	spack
floy	fl	oy	floy

If the student has difficulty pronouncing column I which is first exposed while the other three columns are covered, the student can then try it with all three other columns exposed.

(3) Reading Words: This sub-test has 15 one syllable nonsense words such as: rus, lat and pov for the child to try pronouncing.

(4) Giving Letter Sounds: The student is asked to give the sounds that letters make, including diphthongs, and then is asked for alternative pronunciations for C, S, I and the vowels.

(5) Naming Capital Letters

(6) Naming Lower Case Letters

(7) Recognizing the Visual Form. The tester reads nonsense words which the student is not allowed to see and the student must point to the vowel that is in each word.

Auditory Tests

(1) Auditory Blending: The test administrator says words in parts and the child is required to say the whole word. For example:

st		or
f	in	ger

There are fifteen words in this test.

(2) Auditory Discrimination - The student with his back to the examiner is required to tell if a pair of words are the same or different. Since all the different words are also visually different it might be feasible to use the word list as a speech reading test.

Written Expression

(1) Spelling: The student is asked to write thirty words that are dictated. The ceiling is six consecutive errors. It might be possible to use total communication to administer this test depending upon the student's receptive skills.

(2) Written Expression: the student is asked to write about any topic. There are no objective criteria on which to judge the work. It is suggested that expression of ideas - clarity of expression, punctuation, grammar, complete sentences, spelling and pronouns be checked for.

(3) Handwriting Skills: The written expression is also to be checked for letter formation, reversals, use of upper and lower case letters and spacing.

Disadvantages:
The test in general would present problems for a hearing impaired student dependent on sign language and speech reading and who has limited speech skills.

Tests involving nonsense words are suitable only for hearing impaired students with a great deal of experience and ability in understanding vocabulary and using phonic analysis.

The written expression test gives a vague assignment in writing, no basis for comparison with the skills of others and a generalized set of guidelines for evaluating the student's work.

Advantages:
With the exception of the last part, the test appears to be well constructed and to allow for a detailed analysis of the student's skills in the areas tested. For a student with good

audition this test would be useful for finding weaknesses and planning prescriptive teaching.

The Oral Reading Test could be used as a reading evaluation for a student using sign language although some of the criteria for assessment would be of less significance. The signing student should be checked when he/she fingerspells a word for which there is a sign since the student probably fingerspells it because he/she does not understand the word. Also, the student should be checked for signs which are not appropriate to the concept of the word in that context.

Recommendations:
This test would be valuable in assessing a student who can cope with most of the language arts materials in his/her grade and can demonstrate skills both orally and aurally. It should indicate the student's specific weaknesses and lead to remediation in these areas.

6.13 Reading Skills Competency Tests

Walter B. Barbe, Henriette L. Allen, Wiley C. Thornton
The Centre for Applied Research in Education, Inc.
West Nyack, N.Y. 10094

The tests are usually one page in length and are designed to the skills required to read at that level. Competency is 80-100%. Test groups include vocabulary, word analysis, comprehension and oral and silent reading.

Tests

I. Vocabulary -
Part A-Word Recognition
1. The student is expected to name the printed words of the Dolche Basic Sight Words by the end of the year.
2. Words from clues.
   a) configuration: The student must choose the correct word from two blurred words.
   b) visual similarity of rhyming word families: The student picks a word that does not rhyme from a group of five words.

Part B-Word Meaning
1. Multiple meanings of words. The student chooses pairs of identical words with different meanings to fit into blanks in pairs of sentences.
2. Synonymous meanings. The student matches synonyms.
3. Opposites. The student matches opposites.
4. Words pronounced the same. The student selects the correct word from pairs of homonyms to fit into the context of a sentence.

II. Word Analysis
Part A-Phonetics
There are 10 sub-tests involving consonants, 10 sub-tests involving vowels and 5 sub-tests involving phonetic rules.

The student may be required to fill in missing letters to complete printed words after having heard the word, select a word that fits or does not fit into a phonetic group, select long or short vowels, choose

the correct sound for y, c and g or draw diacritical marks on words.

Part B-Structural Analysis
Sub-tests include:

1. Locating little words within larger ones,
2. Identifying compound words,
3. Understanding possessives,
4. Contractions,
5. Root words,
6. Accented syllables, and
7. Alphabetizing

III. Comprehension

1. Association of ideas of material read - has four sub-tests. Measures ability to draw conclusions, predict outcome, find proof and associate text with pictures.

2. Organization of ideas has three sub-tests measuring ability to follow printed directions, find main idea and plot sequence.

3. Locating of information - measures the ability to use table of contents, page number and title and to find specific information.

4. Appreciation - shows the student's ability to dramatize, illustrate or retell a story.

IV. Oral Reading and Silent Reading

1. Oral Reading - sub-tests require the student to read clearly and distinctly and to read with expression. The student is also to be rated on his/her ability to read without reversals.

2. Silent Reading - the student is to be evaluated on his/her ability to read silently without head or lip movement and to read more rapidly silently than aloud.

Barbe Reading Skills Check List Sequential Skills Plan

A table is provided that lists skills required for reading at eight levels, each level equivalent to skills required for grade levels one through six plus two advanced levels.

Disadvantages:

1. The tests are heavily weighted toward the assessment of phonic skills and phonics may be of limited use to many hearing impaired students. However, the students' success or lack of success on these tests could be valuable to the treatment team in deciding what reading method to emphasize with each student.

2. The individual tests are very short and cannot provide a comprehensive evaluation of each of the students' reading skills.

3. The tests are limited in their assessment of word meaning and comprehension.

4. Judgements of oral and silent reading made by observation may not always be accurate assessments.

Advantages:

1. The tests cover a wide variety of competencies and are available in one collection.

2. It is possible to test one area of reading, if a weakness is suspected in that area.

3. The tests are quick and easy to administer.

Recommendations:

Generally these tests would be more suited for ongoing evaluation of classroom skills or potential skills than as a placement battery.

6.14 Pre-Post Test; APPLE TREE

Anderson, Boren, Caniglia, Howard and Korbin;
Dormac Inc.
P.O. Box 752
Beaverton, Oregon 97075

The Apple Tree Pre-Post Test is designed to test written language in ten declarative sentence structures set out by the Apple Tree language Program. Charts are provided to evaluate each part of speech as outlined by the program. Behavioral objectives are also provided. There are three forms of each test which could be used as pre - mid - and post-test. Five pictures are given each sentence pattern and the student is required to write five sentences following the pattern. The tests may be given separately.

Disadvantages:
The tests may need some pre-teaching if they are to be given to a student unfamiliar with the Apple Tree language structures. However, a sample pattern sentence is given for the first three structures which might let the student understand the requirements. The tests are designed to test language using a particular format related to a specific teaching method and this is somewhat limiting. As well, the ten structures only cover very simple declarative sentences and do not deal with syntactic transformations such as negatives, interrogatives, conjunctions, pronominalizations or embedding in general.

Advantages:
The test and the score sheets provide an accurate picture of the hearing impaired student's ability to use correctly parts of speech within the sentence structures. This would provide information of value for the identification of weaknesses and strengths and for remedial planning. The tests are specifically designed to treat some of the problems deaf students face in writing English.

Recommendations:
These tests should be given to a hearing impaired student if the student is to use the Apple Tree Workbooks as a part of his/her program. If the student has difficulty expressing himself/herself correctly in language tests which do not provide guidance as to structure or which require complex syntax beyond his/her experience, then the Apple Tree Tests could be given to see if the student can reproduce simpler established structures adequately.

6.15 Carolina Picture Vocabulary Test

Thomas L. Layton, David W. Holmes
MEC Modern Education Corporation
P.O. Box 721
Tulsa, Oklahoma 74101

The Carolina Picture Vocabulary Test was designed for the hearing impaired to test their signed vocabulary knowledge. It tests children from the ages of 2 1/2 to 16 years.

Disadvantages:
It should be remembered that this test does not necessarily reflect the child's knowledge of written or spoken words.

The test manual notes that some words cannot be included either because there are no standardized signs for them or because they cannot be represented pictorially.

Advantages:
This test is useful in a total communication setting to let the people dealing with a student assess receptive knowledge of signs.

Recommendations:
The Carolina Picture Vocabulary Test probably tests well what it is designed to test. It may not be too relevant to the placement of a hearing impaired student in a regular class unless signing is to be used.

BIBLIOGRAPHY

Anderson, M., Boren, N.J., Caniglia, J., Howard, W., and Krohn, E. *Apple Tree Language Program* Booklet. Dormac Inc. Beaverton, Oregon, 1980.

Anderson, M., Boren, N.J., Caniglia, J., Howard, W., and Krohn, E. *Apple Tree Language Program* Booklet. Dormac Inc. Beaverton, Oregon, 1980.

Barbe, W.B., Allen, H.L. Thornton, W.C. *Reading Skill Competency Tests*. The Centre for Applied Research in Education, Inc., West Nyack, N.Y., 1979.

Bunch, G. *Test of Receptive Language Ability*. G.B. Services, Toronto, Ontario.

Booth, J., Booth, D., Pauli, W. and Pheniz, J. *Under the Sea - Impressions*. Holt Rinehard Winston of Canada, 1985.

Calvert, D.R. (editor), "Experimental Project in Instructional Concentration." *American Annals of the Deaf*, Volume 126, No. 8, 1982.

Canadian Test Centre, *Canadian Achievement Tests*. McGraw-Hill Ryerson Limited, Scarborough, Ontario, 1981.

Carrow, E. *Carrow Elicited Language Inventory*. Teaching Resource Corporation, Boston, Mass.

Dedrick, S., Lettyzak, J. *Many Meanings* Dormac Inc., Beaverton, Oregon

Dunn, Lloyd M. and Dunn. Leota M. *Peabody Picture Vocabulary Test - Revised*. Psycan, Markham, Ontario, 1981.

Gates, A., McKillop, A., Horowitz, E. *Gates - McKillop - Horowitz Reading Diagnostic Tests - Second Edition*. Teachers College Press, N.Y., N.Y., 1981.

Hammill, D.D. and Newcomer, P.L. *Test of Language Development - Intermediate Edition.* The Psychological Corporation, Harcourt Brace Jovanovich, Cleveland, Ohio, 1982.

Hammill, D.D. and Newcomer, P.L. *Test of Written Language.* The Psychological Corporation, Harcourt Brace Jovanovich, Cleveland, Ohio, 1983.

Karlsen, B., Gardner, E.F. *Stanford Diagnostic Reading Test - 3rd Edition.* The Psychological Corporation, Harcourt Barce Jovanovich, Cleveland, Ohio, 1984.

King, C.M. and Quigley, S.P. *Reading Milestones* Dormac, Inc., Beaverton, Oregon, 1982.

Larson, L. *Consonant Sound Discrimination Test*, Indiana University Press, Bloomington, Indiana, 1950.

Layton, T.L., Holmes, D.W. *Carolina Picture Vocabulary Test.* Modern Education Corporation, Tulsa, Oklahoma.

McInnes, J.A., Gerrard, M., Lawrence, J. and Rychman, J. *Treat Street.* Thomas Nelson and Sons (Canada), 1977.

McInnes, J.A., Gerrard, M., Lawrence, J. and Rychman, J. *I Can Read - Treasure Chest.* Thomas Nelson and Sons (Canada) Ltd., 1977.

McInnes, J.A., Gerrard, M., Lawrence, J. and Rychman, J. *Treasure Chest.* Thomas Nelson and Sons (Canada) Ltd., 1977.

Moog, J. and Geers, *A. Grammatical Analysis of Elicited Language - Complex Sentence Level.* Central Institute for the Deaf, St. Louis, Missouri, 1980.

Quigley, S.P. and King, C.M. *Reading and Deafness.* College - Hill Press, San Diego, California, 1984.

Quigley, S.P. and Paul, P.V. *Language and Deafness.* College - Hill Press, San Diego, California, 1984.

Quigley, S.P. and Powers, D.J. (Ed.) *TSA Syntax Program.* Dormac Inc.,, Beaverton, Oregon, 1978.

Quigley, S.P., Steinkamp, M.W., Powers, D.J. and Jones, B.W. *Test of Syntactic Abilities.* Dormac, Inc., Beaverton, Oregon, 1978.

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